

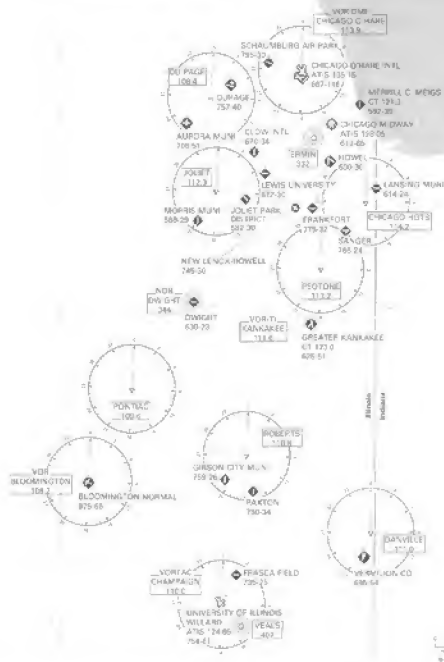
CITY	AIRPORT	NORTH	EAST	ALT	FLY PER WEEK	R/S
Albany	Albany	7660	16393	704		
Albany	Albany	7662	16345	706		
Albany	Albany	17100	17485	715	31	50
Albany	Albany	87146	10278	619		
Albany	Albany	12743	16578	667		
Albany	Albany	13340	16897	874		
Albany	Albany	13118	16717	582		
Albany	Albany	17100	16227	583		
Albany	Albany	17247	16516	395		
Albany	Albany	17213	16486	357		
Albany	Albany	17621	17086	605		
Albany	Albany	18414	16494	630		
Albany	Albany	16475	16596	715		
Albany	Albany	16994	16487	758		
Albany	Albany	17038	16240	612		
Albany	Albany	16646	16567	625		
Albany	Albany	16960	16546	786		
Albany	Albany	17034	16413	686		
Albany	Albany	17025	16571	796		
Albany	Albany	18578	16527	746		
Albany	Albany	17116	16822	672		
Albany	Albany	17981	16812	672		
Albany	Albany	16466	16601	681		

North and east coordinates align with  
orthogonal coordinate grid over a flat  
Lambert conformal cone projection.

### LEGEND

	Call-PAC use airport
	Mandatory Private Nonpublic use airport: having emergency use of historical value
	Rotating light in operation, sunset to sunrise
	SANTA MONICA 26 18 12 176 50
	Report Name Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)
	NAME FREQUENCY = VOR
	NAME FREQUENCY V VORTAC (Distance Measuring Equipment Also)
	NAME FREQUENCY 0 VORDME
	NAME FREQUENCY 0 Non Directional Beacon
	VORONLY NAME FREQUENCY VORONLY (directly on an airport, only the airport symbol will be shown. The VOR frequency is shown at the top of the box)
<b>AIRPORT NAME ABBREVIATIONS</b>	
CO	County
FLD	Field
INTL	International
MUN	Municipal
PRVT	Private Airport (or airpark) open before landing

HUG-BT 5 MILLI-GRAM REFERENCE CHART NOT TO BE USED FOR QUALITY CONTROL OR RESEARCH PURPOSES



# LOS ANGELES AREA CHART

FLIGHT SIMULATOR REFERENCE CHART NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION



VOR  
SANTA MONICA  
110.8

VAN NUYS  
113.1

VAN NUYS  
ATIS 118.45  
799.80

HUGHES (PVT)  
NCT 112.4  
27.38

SANTA MONICA MUNI  
ATIS 118.15  
175.50

LOS ANGELES INTL  
ATIS 133.8  
175-121

LOS ANGELES  
113.6

HAWTHORNE MUNI  
NDB  
68.495

COMPTON  
37.37

TORRANCE MUNI  
101.50

SEAL BEACH  
115.2

MEADOWLARK  
28.23

JOHN WAYNE AIRPORT  
ORANGE COUNTY  
ATIS 126.0  
54.57

BRACKET FLD  
1011-48

CHINO  
250.62

SWAN LAKE  
29.8

CORONA MUNI  
113-12

RIVERSIDE MUNI  
ATIS 114.74

PARADISE  
112.2

VOR  
SANTA ANA  
108.4

CATALINA (PVT)  
CT 129.7

SANTA ANA  
111.1

FALLBROOK COMMUNITY AIRPARK  
706.51

ONTARIO  
115.2

ONTARIO MUNI  
28.30

METCALLEAN-PALOMAR  
378.47

MISSION BAY  
117.8

SAN DIEGO INTL  
LINDSEY HILL FLD  
ATIS 124.8  
19.94



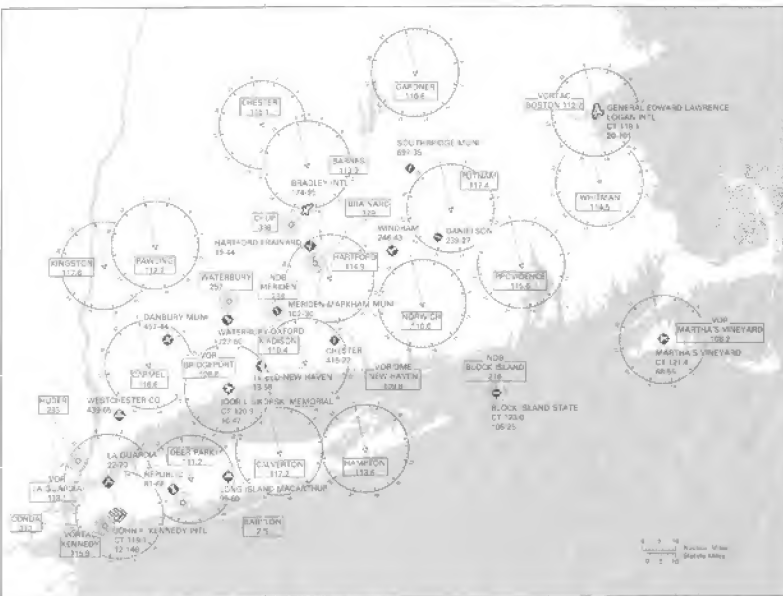
## AIRPORT DIRECTORY—LOS ANGELES AREA

CITY	AIRPORT	NORTH	EAST	ALT.	ILS	ILS
Cambridge	McClellan/Palomas	18031	8112	308		
Catalina (PVT)		15149	5744	1602		
Chino		18319	8070	490		
Compton	Compton	15,334	1059	57		
Corona	Corona Muni	15780	8083	833		
El Monte	El Monte	18397	8680	296		
Fallbrook	Fallbrook Community Airpark	15023	0144	706		
Hawthorne	Hawthorne Muni	18358	5831	83		
Huntington Beach	Meadowlark	15044	5511	28		
La Brea	Bracken Pk	15278	0208	1011		
Los Angeles	Hughes (PVT)	18388	8684	22	*	
Los Angeles	Los Angeles Intl	15134	5869	195	*	
Ontario	Ontario	14824	8095	28		
Ontario	Ontario Intl	18347	8099	953		
Riverside	Riverside Muni	15780	0141	816		
San Diego	San Diego Int'l-Lindbergh Fld	14781	8702	15	*	
Santa Ana	Orange County	15211	8861	84		
Santa Monica	Santa Monica Muni	14802	8799	135	*	
Torrance	Torrance Muni	15308	1875	101		
Van Nuys	Van Nuys	16498	5811	795	*	BR 111.3

North and east coordinates are listed at  
"16" four-figure intervals to conform with  
for orthographic coordinate grid overlaid  
on Lambert conformal conic projection

# NEW YORK AND BOSTON AREA CHART

FLIGHT SIMULATOR REFERENCE CHART  
NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION

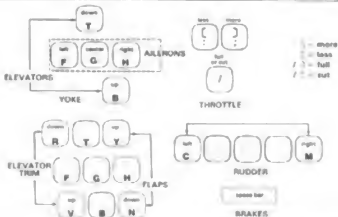


AIRPORT DIRECTORY—NEW YORK AND BOSTON AREA

CITY	AIRPORT	NORTH	EAST	ALT	RS Dist. (nm)	CITY	AIRPORT	NORTH	EAST	ALT	RS Dist. (nm)	N.S. Dist. (nm)
Block Island	Block Island State	17352	71141	105		Martha's Vineyard	Martha's Vineyard	17850	22043	65		24138.7
Boston	General Edward Lawrence Logan Int'l	17099	21853	20		Meriden	Meriden-Markham Mun	17447	21327	107		
Bridgeport	Yonkers-Servino Memorial	17287	21249	15		New Haven	Tweed New Haven	17389	21322	82		
Chester	Chester	17424	21424	416		New Roch	John B. Kennedy Int'l	17034	21085	32		
Danbury	Danbury Mun	17360	21120	452		New York	La Guardia	17001	21026	22		
Danvers	Danvers	17617	21807	239		Oxford	Waterbury Oxford	17422	21299	229		
Farmingdale	Farmingdale	17089	21177	81		Southbridge	Southbridge Mun	17733	21543	697		
Hartford	Hartford Brainard	17551	21771	19		Westchester Co	Westchester Co	17235	21065	439		
Islip	Long Island MacArthur	17112	21278	99		Windham	Windham	17073	21821	348		
						Windsor Locks	Bedford	17638	21351	178		

North and east coordinates are centered at +10° elevation to compensate for orthogonal coordinate grid overlaid on Lambert conformal cone projection.

# CM-FS2 FLIGHT REFERENCE CARD



FLIGHT CONTROLS

**CARB HEAT** — ctrl H to for cool toggles carb heat on and off

**MIXTURE** — ctrl M 1 up  
 ctrl M 2 right  
 ctrl M 3 left  
 ctrl M 4 carb  
 ctrl M 5 start

**MIXTURE** — ctrl M full lean (open exhaust)  
 ctrl M rich (closes flight instructor)

**FUEL TANK SELECT** — ctrl F left tank  
 ctrl F right tank

ENGINE

**COM RADIO** — ctrl C for voice high digits 1 for decrease  
 ctrl C ctrl C decrease low digits

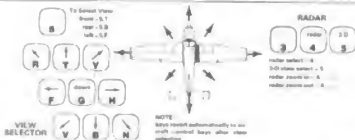
**RATV RADIO** — ctrl R 1 select RATV 1 for frequency changes  
 ctrl R 2 select RATV 2  
 ctrl R increase high digits on selected RATV radio 5 for decrease  
 ctrl R ctrl R increase low digits

**ADF** — ctrl A ctrl A 1 2 or 3 times to select digits 1 2 or 3

**VOR OBS** — ctrl V 1 select VOR OBS 1  
 ctrl V 2 select VOR OBS 2  
 ctrl V increase bearing 1 for decrease

**TRANSPONDER** — press ctrl T one time three or four times (usually) to select digits 1, 2, 3, or 4  
 ctrl T increase digit 1 for decrease  
 ctrl T ctrl T is inserted as 0

RADIOS



VIEWS

ctrl L - lights  
 ctrl B - airmen adjust  
 ctrl D - heading indicator adjust  
 ctrl Z - save mode library to disk  
 ctrl X - read mode library from disk

E - go into edit mode  
 P - pause (toggles between pause and run)  
 + - read mode from library (reset simulator)  
 S - save current flight parameters to mode library

MISC



# SEATTLE AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AFRIAL NAVIGATION



## AIRPORT DIRECTORY—SEATTLE AREA

CITY	AIRPORT	NORTH	EAST	ALT.	ELEV. (Feet)	ILS (Feet)
Alderwood Manor	Martha Lake	21502	6870	500		
Arlington	Arlington Muni	21616	6737	137		
Auburn	Auburn Muni	21290	6586	57		
Bremerton	Bremerton National	21407	6470	481		
Everett	Snohomish Co.	21575	6665	603	*	15/109.3
Issaquah	Issaquah	21362	6668	500	*	
Monroe	Flying F. Ranch	21481	6738	50		
Olympia	Olympia	21218	6343	206	*	
Puyallup	Pierce Co.-Thun Fld	21208	6634	530		
Port Angeles	William R. Fairchild Intl.	21740	6375	288	*	
Port Orchard	Port Orchard	21373	6483	370		
Renton	Renton Muni	21351	6612	79		
Seattle	Boeing Fld King Co. Intl	21376	6596	17	*	
Seattle	Henry M. Jackson Intl.	21343	6584	479		
Shelton	Sanderson Fld.	21353	6316	2/8		
Snohomish Co. (Paine Fld)	see Everett					
Snohomish	Harvey Fld	21505	6711	18		
Spanaway	Shady Acres	21201	6501	425		
Spanaway	Spanaway	21215	6491	385		
Tacoma	Tacoma Narrows	21300	6480	292		

North and east coordinates are centered at 21° (counterclockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection

## Abilene (VOR)

13431N 12205E  
freq. 113.7

## Abilene

13384N 12269E  
alt. 1791

RMW 17-35	7199 X 147
RMW 17-35	7195 X 147
RMW 4-22	3683 X 93



## Acton (VOR)

13330N 13014E  
freq. 110.6

## Ada (NDB)

14391N 13461E  
freq. 302

## Ada

14318N 13445E  
alt. 1007

RMW 17-35	4998 X 98
RMW 17-35	3102 X 49



## Amarillo (VOR)

14729N 11708E  
freq. 117.2

## Amarillo Int'l

14687N 11686E  
 RWY 4-22 13500 X 298  
 RWY 13-31 5405 X 49



## Ardmore (NDB)

14042N 13808E  
 freq. 351

## Ardmore

14033N 13790E  
 alt. 574  
 RWY 17-35 3299 X 59



## Arbuckle (NDB)

14054N 13271E  
 freq. 284

## Ardmore (VOR)

14089N 13260E  
 freq. 115.7

## Ardmore, Downtown Ardmore

14055N 13260E  
 alt. 843  
 RWY 17-35 4998 X 72



## Ardmore

14115N 13303E  
 alt. 761  
 RWY 8-26 7222 X 147  
 RWY 12-30 7199 X 147  
 RWY 4-22 7038 X 147  
 RWY 17-35 6978 X 147



## Big Spring (VOR)

13460N 11604E  
 freq. 114.3

## Blue Ridge (VOR)

13659N 13521E  
 freq. 114.9

## Borger (VOR)

14943N 11828E  
 freq. 108.5

## Borger, Hutchinson Co.

14876N 11824E  
alt. 3054

RWY 17-35 6297 X 98  
RWY 3-21 3895 X 98



## Bowie

13836N 13013E  
alt. 1102

RWY 17-35 3617 X 59



## Breckenridge (NDB)

13510N 12575E  
freq. 245

## Breckenridge, Stephens Co.

13495N 12569E  
alt. 1282

RWY 17-35 4598 X 98  
RWY 4-22 2374 X 49  
RWY 13-31 2374 X 49



## Bridgeport (VOR)

13683N 13008E  
freq. 116.5

## Brownwood (VOR)

13125N 12506E  
freq. 108.6

## Burns Flat (VOR)

14605N 12571E  
freq. 110

## Canadian, Hemphill Co.

14918N 12178E  
alt. 2385

RWY 4-22 4099 X 72  
RWY 0-18 2997 X 29



## Childress (VOR)

14271N 12142E  
freq. 117.6

## Childress

14289N 12145E  
alt. 1952

RWY 4-22 5999 X 147  
RWY 8-26 5999 X 147  
RWY 13-31 5999 X 147  
RWY 17-35 4496 X 72



## Clarendon (NDB)

14530N 11952E  
freq. 281

## Clarendon

14515N 11955E  
alt. 2931

RWY 1-19 3696 X 59



## Clinton - Sherman

14536N 12575E  
alt. 1922

RWY 17-35 13500 X 147  
RWY 17-35 5192 X 72



## Coleman (NDB)

13121N 12337E  
freq. 385

## Corsicana (NDB)

13079N 13487E  
freq. 396

## Cushing (NDB)

14809N 13462E  
freq. 242

## Cushing

14820N 13447E  
alt. 915

RWY 17-35 5198 X 98



## Dallas, Addison

13535N 13324E  
alt. 643

RWY 15-33 7196 X 98



## Dallas, Dallas Love

13485N 13316E  
alt. 485

RWY 13-31 8795 X 147  
RWY 13-31 7750 X 147  
RWY 0-18 6146 X 147



## Dallas, Meacham

13489N 13127E  
alt. 708

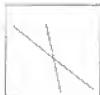
RWY 16-34 7453 X 147  
RWY 9-27 4050 X 98  
RWY 16-34 3938 X 72



## Dallas, Redbird

13414N 13302E  
alt. 659

RWY 13-31 5421 X 147  
RWY 17-35 3798 X 147



## Dallas-Ft. Worth (VOR)

13497N 13264E  
freq. 117

## Dallas-Ft. Worth Reg.

13510N 13248E  
alt. 604

RWY 17-35 11384 X 147  
RWY 17-35 11384 X 196  
RWY 3-18 11384 X 196  
RWY 3-18 11384 X 147  
RWY 13-31 8997 X 196



## Duncan (VOR)

14189N 12997E  
freq. 111

## Durant (NDB)

13953N 13531E  
freq. 359

## Durant, Eaker

13945N 13516E  
alt. 699

RWY 17-35 4938 X 98  
RWY 12-30 2997 X 72



## Eastland

13363N 12588E  
alt. 1469

RWY 17-35 4054 X 59



## El Reno (NDB)

14671N 13009E  
freq. 335

## El Reno, Mustang

14649N 12998E  
alt. 1414

RWY 17-35 4198 X 59



## Farley (NDB)

13333N 11268E  
freq. 326

## Gainesville (NDB)

13870N 13233E  
freq. 330

## Gainesville

13840N 13220E  
alt. 833

RWY 4-22            4749 X 147  
RWY 12-30        4654 X 147  
RWY 8-26         4598 X 147  
RWY 17-35        4495 X 93



## Graham (NDB)

13664N 12717E  
freq. 335

## Graham

13649N 12709E  
alt. 1122

RWY 3-21            4198 X 72  
RWY 17-35        3325 X 49



## Grindstone Mountain (NDB)

13843N 13022E  
freq. 355

## Guthrie (VOR)

14014N 12997E  
freq. 112.4

## Guthrie

14790N 13219E  
alt. 1073

RWY 16-34            2597 X 49



## Haskell (NDB)

13737N 12297E  
freq. 407

## Haskell

13731N 12296E  
alt. 1624

RWY 0-18            3197 X 49



## Memphis CO. (NDB)

14938N 12177E  
freq. 400

## Henryetta (NDB)

14577N 13714E  
freq. 257

## Merryetta

14562N 13695E  
alt. 850

RWY 17-35 3499 X 49



## Mobart (VOR)

14439N 12605E  
freq. 111.8

## Mobart

14479N 12610E  
alt. 1565

RWY 3-21 5297 X 147  
RWY 12-30 5297 X 147  
RWY 17-35 5277 X 147



## Holdenville (NDB)

14450N 13557E  
freq. 411

## Holdenville

14437N 13542E  
alt. 863

RWY 17-35 3250 X 98  
RWY 13-31 3197 X 98



## Hudson (NDB)

13435N 13440E  
freq. 248

## Hudson Muni.

13432N 13426E  
alt. 446

RWY 17-35 3398 X 49



## Hyman (VOR)

13337N 11725E  
freq. 110.4

## Xingfisher (VOR)

14810N 13023E  
freq. 114.7

## Lanesa (NDB)

13542N 11468E  
freq. 338

## Lanesa

13539N 11476E  
alt. 2993

RWY 16-34 4198 X 72  
RWY 7-25 2141 X 49





## Lawton (VOR)

14254N 12823E  
freq. 109.4

## Logan Co. (NDB)

14808N 13231E  
freq. 326

## Lubbock (VOR)

14053N 11522E  
freq. 109.2

## Lubbock

14024N 11563E  
alt. 3280

RWY 17-35 11499 X 147  
RWY 8-26 7999 X 147  
RWY 17-35 2866 X 72



## McAlester (VOR)

14329N 13781E  
freq. 112

## McAlester

14332N 13762E  
alt. 771

RWY 1-19 5598 X 98



## McKinney (NDB)

13621N 13433E  
freq. 311

## McKinney

13616N 13419E  
alt. 581

RWY 17-35 3998 X 72



## Midland (VOR)

13338N 11320E  
freq. 114.8

## Millsap (VOR)

13468N 12902E  
freq. 117.7

## Mineral Wells (NDB)

13497N 12883E  
freq. 256

## Mineral Wells

13495N 12875E  
alt. 964

RWY 13-21 4323 X 98  
RWY 17-35 4198 X 98



## Norman (NDB)

14550N 13187E  
freq. 260

Norman, Max Westheimer

14535N 13175E  
alt. 1181

RWY 13-31 2997 X 59  
RWY 17-35 1797 X 78



## Oklahoma City (VOR)

14645N 13090E  
freq. 115

Oklahoma City, Will Rogers World

14600N 13139E  
alt. 1296

RWY 17-35 9800 X 147  
RWY 17-35 9797 X 147  
RWY 12-30 6527 X 147  
RWY 17-35 2974 X 72



## Okmulgee (VOR)

14699N 13777E  
freq. 112.2

## Old Rip (NDB)

13355N 12592E  
freq. 410

## Pampa (NDB)

14836N 11955E  
freq. 368

Pampa, Perry Lefors

14818N 11959E  
alt. 3244

RWY 17-35 5497 X 98  
RWY 5-23 4496 X 72



## Paris (VOR)

13748N 13864E  
freq. 113.5

Paris, Cox

13787N 13850E  
alt. 548

RWY 17-35 5999 X 147  
RWY 3-21 4624 X 147  
RWY 13-31 4621 X 147



## Plainview (VOR)

14216N 11587E  
freq. 112.9

## Plainview, Hale Co.

14238N 11627E  
alt. 3372

RWY 4-22 5195 X 98  
RWY 13-31 3993 X 98



## Powell (NDB)

13094N 13480E  
freq. 344

## Quitman (VOR)

13459N 13876E  
freq. 114

## Redbird (NDB)

13415N 13314E  
freq. 287

## Sayre (VOR)

14669N 12424E  
freq. 115.2

## Scotland (NDB)

13951N 12769E  
freq. 344

## Scurry (VOR)

13302N 13504E  
freq. 112.9

## Shawn (NDB)

13999N 12784E  
freq. 296

## Shawnee (NDB)

14580N 13382E  
freq. 227

## Shawnee

14564N 13568E  
alt. 1079

RWY 17-35 4193 X 147



## Stephenville (NDB)

13254N 12819E  
freq. 223

## Sulphur Springs (VOR)

13600N 13320E  
freq. 109

## Sweetwater (NDB)

13451N 11984E  
freq. 275

## Tahlequah (NDB)

14781N 14089E  
freq. 215

## Tahlequah

14763N 14067E  
alt. 872

RWY 17-35 3197 X 59



## Tulsa (VOR)

14917N 13821E  
freq. 114.4

## Tulsa Int'l

14913N 13778E  
alt. 676

RWY 17-35 9997 X 196  
RWY 8-25 7694 X 147  
RWY 17-35 5497 X 147



## Tuscola (VOR)

13322N 12211E  
freq. 111.6

## weetwater

13448N 11987E  
alt. 2385

RWY 16-34 5841 X 72  
RWY 3-21 5648 X 147



## Witchita Falls (VOR)

14039N 12735E  
freq. 112.7

## Witchita Falls

14024N 12754E  
alt. 1014

RWY 15-33 13097 X 298  
RWY 15-33 8796 X 147  
RWY 17-35 6999 X 147





## Alexandria, Esler Reg.

12624N 14983E  
alt. 112

RWY 8-26 5935 x 147  
RWY 14-32 5598 x 147



## Andrau (NOB)

12042N 13663E  
freq. 269

## Baton Rouge (VOR)

12292N 15323E  
freq. 116.5

## Baton Rouge, Ryan

12216N 15381E  
alt. 72

RWY 4-22 6081 x 147  
RWY 13-31 5795 x 147



## Bay City (NDB)

11720N 13521E  
freq. 344

## Bay City

11729N 13544E  
alt. 46

RWY 13-31 5116 X 72



## Beaumont (VOR)

12064N 14275E  
freq. 114.5

## Beaumont / Port Arthur, Jefferson Co.

12065N 14288E  
alt. 16

RWY 12-30 6250 X 147  
RWY 16-24 5970 X 147



## Beaumont

12120N 14221E  
alt. 54

RWY 12-30 3598 X 55



## Cherokee Co. (NDB)

12555N 13916E  
freq. 263

## College Station (VOR)

12450N 13400E  
freq. 113.3

## College Station, Easterwood

12441N 13443E  
alt. 318

RWY 10-28 5159 X 147  
RWY 16-34 5146 X 147  
RWY 4-22 5146 X 147



## Corsicana (NDB)

13079N 13487E  
freq. 396

## Corsicana

13065N 13509E  
alt. 446

RWY 14-32 4998 X 147



## Crocket (NDB)

12720N 13819E  
freq. 356

## Crockett, Houston Co.

12709N 13838E  
alt. 351

RWY 2-20 3257 X 49



## Daisetta (VOR)

12196N 14046E  
freq. 116.9

## Dallas-Ft. Worth (VOR)

13497N 13264E  
freq. 117

## David Hooks (NDB)

12210N 13698E  
freq. 521

## De Ridder, Beauregard Parish

12421N 14578E  
alt. 203

RWY 0-18 5497 X 98  
RWY 9-27 4495 X 147



## Eagle Lake (VOR)

12045N 13385E  
freq. 108.6

## Eagle Lake

12019N 13404E  
alt. 184

RWY 17-35 3427 X 49  
RWY 12-30 2833 X 42



## Ellington (VOR)

11969N 13822E  
freq. 111

## Esler (VOR)

12656N 14975E  
freq. 108.8

## Galveston (NDB)

11827N 13966E  
freq. 296

## Galveston (NDB)

11833N 13960E  
freq. 206

## Galveston, Scholes

11805N 13935E  
alt. 7

RWY 17-35 5999 X 147  
RWY 13-31 5999 X 147





## Goodhue (NDB)

12130N 14212E  
freq. 368

## Hobby (VOR)

11993N 13781E  
freq. 117.6

## Hodge (NDB)

13003N 14654E  
freq. 256

## Houston Intercontinental

12137N 13786E  
alt. 98

RWY 14-32	11998 X 147
RWY 8-26	9400 X 147
RWY 14-32	6035 X 98
RWY 13-31	1981 X 72

## Houston, Andrau

12037N 13686E  
alt. 79

RWY 16-34	4749 X 49
RWY 11-29	2997 X 49

## Houston, Hobby

11989N 12799E  
alt. 46

RWY 4-22	7599 X 147
RWY 13-31	7599 X 147
RWY 17-35	5999 X 147
RWY 13-31	5149 X 98

## Houston, Hooks Mem.

12176N 13717E  
alt. 151

RWY 17-35	6999 X 98
RWY 17-35	3998 X 39

## Hudson (NDB)

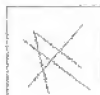
13435N 13440E  
freq. 248

## Humble (VOR)

12128N 13770E  
freq. 116.6

## Huntsville (NDB)

12485N 13721E  
freq. 308



B - HOUSTON

## Huntsville

12476N 13741E  
alt. 367

RWY 0-18 4998 X 98



## Kountze - Silsbee, Hawthorne Fld.

12242N 14217E  
alt. 75

RWY 13-31 3798 X 72



## Industry (VOR)

12185N 13310E  
freq. 110.2

## Lafayette (VOR)

12077N 15030E  
freq. 110.8

## Jacksonville, Cherokee Co.

12943N 13533E  
alt. 676

RWY 13-31 4998 X 72



## Lafayette Reg.

12098N 15064E  
alt. 43

RWY 3-21 7648 X 147  
RWY 10-28 5398 X 147  
RWY 1-19 5067 X 147



## Jasper (NDB)

12506N 14311E  
freq. 344

## Lake Charles (VOR)

12116N 14625E  
freq. 113.4

## Jasper Co. - Bell Fld.

12473N 14324E  
alt. 223

RWY 17-35 4149 X 68



## Lake Charles

12112N 14594E  
alt. 16

RWY 15-33 6497 X 147  
RWY 5-23 4398 X 98



10 - HOUSTON

Lakeside (NDB)

12084N 13637E  
freq. 249

Lee Co. (NDB)

12301N 13166E  
freq. 385

Lena (VDR)

12664N 13597E  
freq. 110.8

Lufkin (VDR)

12626N 14066E  
freq. 112.1

Lufkin, Angelina Co.

12649N 14075E  
alt. 289

RWY 15-33 4513 X 98  
RWY 7-25 4398 X 98



Mansfield (NDB)

12984N 14466E  
freq. 414

Mansfield, DeSoto Parish

12971N 14478E  
alt. 325

RWY 3-21 5067 X 147  
RWY 0-18 5057 X 72



Nacogdoches (NDB)

12832N 14084E  
freq. 391

Nacogdoches, East Texas Reg.

12796N 14105E  
alt. 371

RWY 6-24 4198 X 147  
RWY 15-33 3598 X 72



Natchez (VDR)

12696N 15364E  
freq. 110

Natchez-Adams Co., Hardy-Anders Fld

12683N 15363E  
alt. 272

RWY 13-31 3467 X 147  
RWY 17-35 4498 X 147



## Natchitoches (NOB)

12810N 14698E  
freq. 407

## Natchitoches

12798N 14707E  
alt. 118

RWY 16-34 4073 X 147  
RWY 7-25 3998 X 147



## Navasota (VOR)

12305N 13518E  
freq. 115.9

## New Iberia, Acadiana

12025N 15087E  
alt. 23

RWY 16-34 7999 X 196



## Opelousas, St. Landry Parish

12257N 15026E  
alt. 72

RWY 17-35 4549 X 98  
RWY 5-23 4047 X 98



## Palacios (VOR)

11654N 13341E  
freq. 117.3

## Palacios

11643N 13384E  
alt. 16

RWY 8-26 4998 X 147  
RWY 13-31 4998 X 147  
RWY 17-35 4998 X 147



## Palestine (NOB)

12936N 13730E  
freq. 375

## Palestine

12924N 13750E  
alt. 423

RWY 8-26 3998 X 72  
RWY 17-35 3998 X 72



## Parish (NOB)

12392N 14567E  
freq. 385

## Pine (NOB)

12470N 14307E  
freq. 332

## Polk (VOR)

12544N 14626E  
freq. 108.4

## Port Lavaca (NDB)

11628N 13191E  
freq. 515

## Port Lavaca, Calhoun Co.

11631N 13217E  
alt. 33

Rwy 14-32 3998 X 72



## Powell (NDB)

13094N 13480E  
freq. 344

## Quitman (VOR)

13458N 13876E  
freq. 114

## Redbird (NDB)

13415N 13314E  
freq. 297

## Robinson (NDB)

12874N 13187E  
freq. 400

## Rockport (NDB)

14404N 13000E  
freq. 391

## Sabine Pass (VOR)

11954N 14250E  
freq. 115.4

## Scholes (VOR)

11840N 13871E  
freq. 112.8

## Scurry (VOR)

13302N 13504E  
freq. 112.9

## Temple (VOR)

12763N 13043E  
freq. 110.4

## Tomball (NDB)

12185N 13696E  
freq. 403

## Victoria (VOR)

11746N 13031E  
freq. 109

## Waco (VOR)

12955N 13122E  
freq. 115.3

## 16 - HOUSTON

## White Lake (VOR)

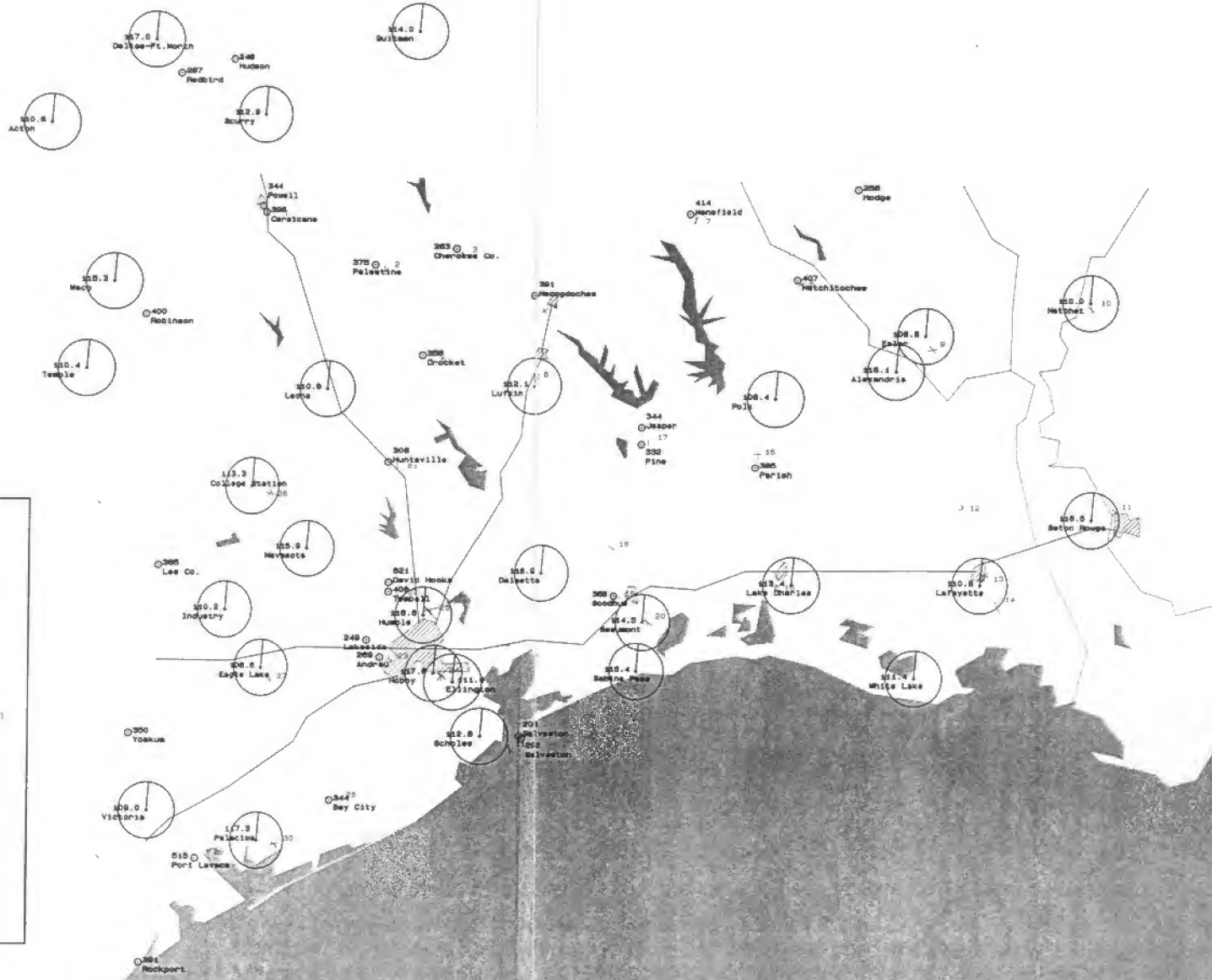
11878N 14881E  
freq. 111.4

## Yoskun (NDB)

11925N 13065E  
freq. 350

# HOUSTON SECTIONAL

- 1 Corsicana
- 2 Palestine
- 3 Jacksonville, Cherokee Co.
- 4 Macopdoches, East Texas Reg.
- 5 Crockett, Houston Co.
- 6 Lufkin, Angelina Co.
- 7 Mansfield, Desoto Parish
- 8 Natchitoches
- 9 Alexandria, Isler Reg.
- 10 Hatcher-Adam Co., Hardy-Anders Fld
- 11 Baton Rouge, Ryan
- 12 Opelousas, St. Landry Parish
- 13 Lafayette Reg.
- 14 New Iberia, Acadiana
- 15 Lake Charles
- 16 De Ridder, Beauregard Parish
- 17 Jasper Co., Bell Fld.
- 18 Kountze - Silsbee, Hawthorne Fld.
- 19 Beaumont
- 20 Beaumont / Port Arthur, Jefferson Co.
- 21 Huntsville
- 22 Houston, Hooks Mem.
- 23 Houston, Andrau
- 24 Houston, Moody
- 25 Houston Intercontinental
- 26 College Station, Easterwood
- 27 Eagle Lake
- 28 Bay City
- 29 Port Lavaca, Calhoun Co.
- 30 Palacios
- 31 Galveston, Scholes



## LEGEND

- frequency MGB
- name
- frequency VOR Needle points to magnetic north
- name
- 24 Airport Layout Diagram (runway lengths are 3 times scale length)
- Roads
- Rivers
- Water (Man-made, etc.)
- Hydrographic (Soundings)

## Abilene (VOR)

13431N 10005E  
freq. 113.7

## Acton (VOR)

13330N 13014E  
freq. 110.6

## Alice (VOR)

11267N 12652E  
freq. 114.5

## Austin (VOR)

12375N 12896E  
freq. 114.6

## Austin, Mueller

12375N 12909E  
alt. 533

RWY 13-31	7268 X 147
RWY 17-35	5005 X 147
RWY 13-31	3158 X 72



## Big Lake, Reagan Co.

12937N 10554E  
alt. 2703

RWY 17-31 4027 X 69



## Big Spring (VOR)

13460N 11604E  
freq. 114.3

## Brooks Co. (NDB)

11050N 12589E  
freq. 353

## Brownsville (VOR)

10425N 12825E  
freq. 116.3

## Brownsville/South Padre Island Int'l

10476N 12808E  
alt. 23

RWY 13-31 7399 X 147  
RWY 17-35 5999 X 147  
RWY 13-31 2997 X 72



## Brownwood (VOR)

13125N 12506E  
freq. 108.6

## Brownwood

13069N 12508E  
alt. 1387

RWY 17-35 5595 X 147  
RWY 12-30 4598 X 98



## Caprizo Springs, Dimmit Co.

11708N 12014E  
alt. 620

RWY 12-30 5297 X 72



## Center Point (VOR)

12281N 12306E  
freq. 117.5

## Coleman (NDB)

13121N 12337E  
freq. 355

## Coleman

13111N 12349E  
alt. 1696

RWY 15-33 3798 X 72



## College Station (VOR)

12460N 13400E  
freq. 113.3

## Conor (NDB)

11313N 12827E  
freq. 382



## Corpus Christi (VOR)

11338N 12662E  
freq. 115.5

## Corpus Christi

11283N 12654E  
alt. 43

RWY 13-31 7507 X 147  
RWY 17-35 5077 X 147



## Cotulla (VOR)

11642N 12264E  
freq. 115.8

## Dallas-Ft. Worth (VOR)

13497N 13264E  
freq. 117

## Dimmit Co. (NDB)

11703N 11999E  
freq. 343

## Eagle Lake (VOR)

12045N 13385E  
freq. 108.6

## Falfurrias, Brooks Co.

10034N 10077E  
alt. 112

RWY 17-35 4998 X 72  
RWY 14-32 3299 X 68



## Farley (NDB)

13333N 11268E  
freq. 326

## Fort Stockton (VOR)

12923N 10959E  
freq. 112.8

## Fort Stockton-Pecos Co.

12899N 11008E  
alt. 3011

RWY 12-30 7498 X 98



## Harlingen (VOR)

10650N 12677E  
freq. 108.8

## Harlingen, Rio Grande Valley Int'l

10625N 12732E  
alt. 36

Rwy 17-35 8298 X 147  
Rwy 17-35 5949 X 147  
Rwy 8-26 5743 X 147  
Rwy 13-31 5254 X 147



## Honda (NOB)

12039N 12294E  
freq. 329

## Hondo

12037N 12303E  
alt. 928

Rwy 8-25 6507 X 147  
Rwy 13-31 6097 X 147  
Rwy 17-35 6097 X 147  
Rwy 4-22 5497 X 147  
Rwy 17-35 4696 X 147



## Hyman (VOR)

13337N 11721E  
freq. 110.4

## Industry (VOR)

12185N 13310E  
freq. 110.2

## Junction (VOR)

12503N 12117E  
freq. 116

## Lampasas (VOR)

12782N 12774E  
freq. 112.5

## Lampasas

12741N 12752E  
alt. 1214

Rwy 16-34 3808 X 59



## Laredo (VOR)

11234N 12100E  
freq. 117.4

## Laredo Int'l

11253N 12098E  
alt. 508

Rwy 17-35 8199 X 147  
Rwy 17-35 7809 X 147  
Rwy 14-32 5923 X 147  
Rwy 9-27 5431 X 147



## Laughlin (VOR)

12113N 11688E  
freq. 114.4

## Lee Co. (NDB)

12301N 13166E  
freq. 385

## Llano (VOR)

12641N 12513E  
freq. 108.2

## McAllen (VOR)

10617N 12497E  
freq. 109.8

## McAllen, Miller Int'l

10621N 12503E  
alt. 108

RWY 13-31 7107 X 147  
RWY C-19 2984 X 59



## McGregor

12871N 13097E  
alt. 590

RWY 17-35 5497 X 147  
RWY 4-22 3778 X 55



## Midland (VOR)

13338N 11320E  
freq. 114.8

## Millsap (VOR)

12458N 12902E  
freq. 117.7

## Mineral Wells (NDB)

13497N 12883E  
freq. 266

## Mitchell (NDB)

10449N 12624E  
freq. 375

## Monahans, Hurd Mem.

13180N 11054E  
alt. 2614

RWY 12-30 4267 X 72  
RWY 1 19 2929 X 72



## Navy Corpus (VOR)

11239N 12931E  
freq. 114

## New Braunfels (NDB)

12136N 12740E  
freq. 212

## New Braunfels

12137N 12746E  
alt. 646

RWY 17-35 5369 X 147  
RWY 4-22 5349 X 147  
RWY 13-31 5359 X 98


## Old Rip (NDB)

13355N 12592E  
freq. 410

## Palacios (VOR)

11654N 13341E  
freq. 117.3

## Port Lavaca (NDB)

11628N 13191E  
freq. 515

## Randolf (VOR)

12065N 12638E  
freq. 112.3

## Reagan (NDB)

12943N 11536E  
freq. 341

## Redbird (NDB)

13415N 13314E  
freq. 287

## Robinson (NDB)

12874N 13107E  
freq. 400

## Rockport (NDB)

11404N 13044E  
freq. 391

## Rockport, Arkansas Co.

11402N 13046E  
alt. 26

RWY 14-32 5398 X 147  
RWY 8-26 4496 X 147  
RWY 17-35 4496 X 147


## Rocksprings (VOR)

12372N 11903E  
freq. 113.8

## San Angelo (VOR)

12470N 11921E  
freq. 115.1

## San Angelo, Dalhart

12870N 11824E  
alt. 1312

RWY 8-30 5317 X 147  
RWY 8-21 5316 X 167  
RWY 18-23 4350 X 72


## San Antonio (VOR)

12125N 12576E  
freq. 116.8

## San Antonio Int'l

12083N 12578E  
alt. 810

Rwy 12-30 8501 X 147  
Rwy 3-21 7504 X 147  
Rwy 12-30 5434 X 98



## Sanora (NDB)

2638N 11801E  
freq. 371

## Seguin, Geronimo Fld.

12086N 12760E  
alt. 553

Rwy 12-30 3667 X 42



## Sonora

12533N 11818E  
alt. 2139

Rwy 0-18 3676 X 72



## Stephenville (NDB)

12254N 12819E  
freq. 223

## Stinson

11999N 12569E  
alt. 577

Rwy 9-27 4824 X 98  
Rwy 14-32 4126 X 98



## Stonewall (VOR)

12381N 12512E  
freq. 113.1

## Sweetwater (NDB)

13451N 11984E  
freq. 275

## Temple (VOR)

12763N 13043E  
freq. 110.4

## Temple, Draughon-Miller

12732N 13045E  
alt. 682

Rwy 13-33 6300 X 147  
Rwy 2-20 4739 X 147



## Three Rivers (VOR)

11618W 12637E  
freq. 111.4

## Tuscola (VOR)

13322W 12211E  
freq. 111.6

## Uvalde (NDB)

11982W 12073E  
freq. 281

## Uvalde, Garner

12000W 12084E  
alt. 941

RWY 15-33 5247 X 98



## Victoria (VOR)

11746W 13091E  
freq. 109

## Waco (VOR)

12955W 13122E  
freq. 115.3

## Waco - Madison Cooper

12922W 13134E  
alt. 515

RWY 1-19 5596 X 147  
RWY 14-32 5397 X 147  
RWY 5-23 5497 X 147



## Yoakum (NDB)

11926W 13065E  
freq. 356

## Yoakum Muni.

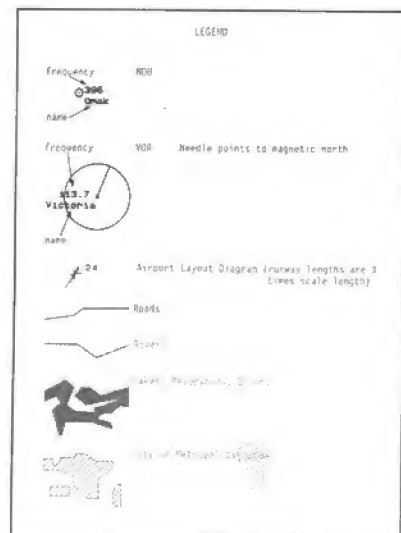
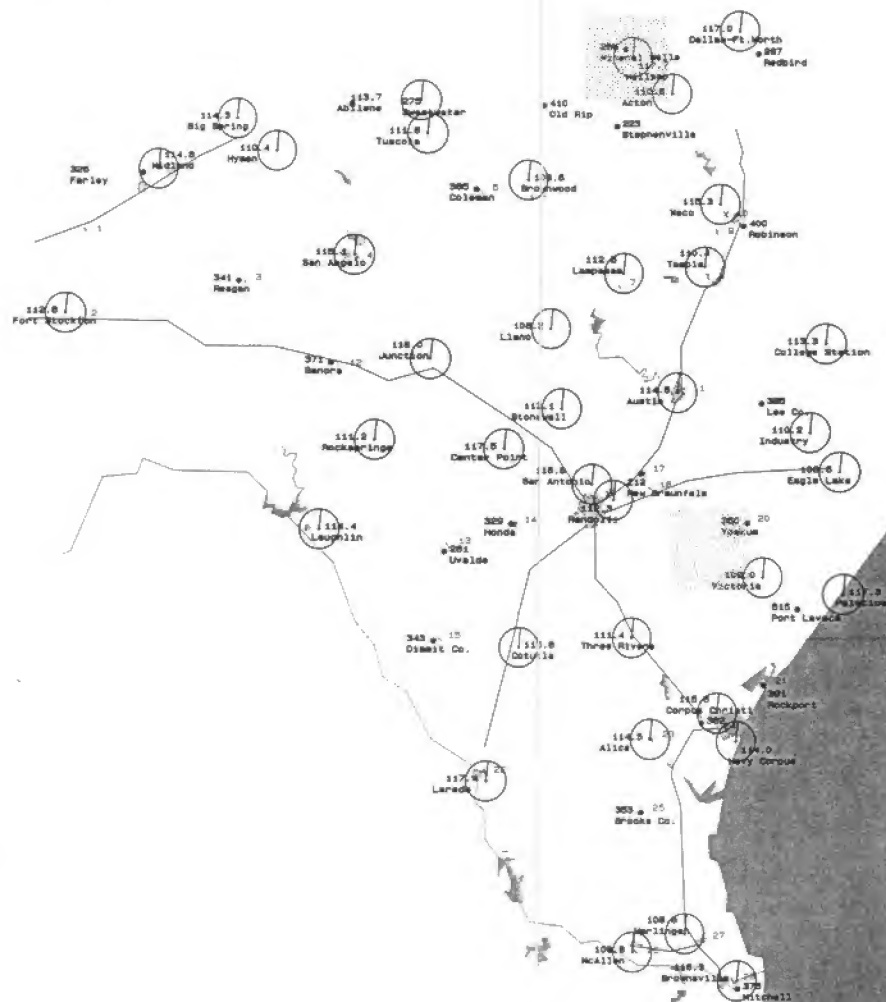
11930W 13064E  
alt. 367

RWY 13-31 3447 X 59



# SAN ANTONIO AND BROWNSVILLE SECTIONALS

- 1 Monahans, Hurd Mon.
- 2 Fort Stockton-Pecos Co.
- 3 Big Lake, Reagan Co.
- 4 San Angelo, Muthis
- 5 Coleman
- 6 Brownwood
- 7 Lampasas
- 8 Temple, Draughton-Miller
- 9 McGregor
- 10 Waco - Madison Cooper
- 11 Austin, Mueller
- 12 Sonora
- 13 Uvalde, Garner
- 14 Mondo
- 15 Laurizo Springs, Dimmit Co.
- 16 San Antonio Int'l
- 17 New Braunfels
- 18 Seguin, Garconimo Fld.
- 19 Dinson
- 20 Yockum Mnt.
- 21 Rockport, Arkansas Co.
- 22 Laredo Int'l
- 23 Alice Int'l
- 24 Corpus Christi
- 25 Falfurrias, Brooks Co.
- 26 McAllen, Miller Int'l
- 27 Harlingen, Rio Grande Valley Int'l
- 28 Brownsville/South Padre Island Int'l



## Alamagordo - White Sands

13805N 10072E  
alt. 4198

RWY 3-21 7202 X 147



## Albuquerque (VOR)

14735N 9905E  
freq. 113.2

## Albuquerque Int'l

14762N 9979E  
alt. 5353

RWY 8-26	13372 X 298
RWY 17-35	8990 X 196
RWY 3-21	7747 X 147
RWY 12-30	5392 X 147



## Albuquerque, Alameda

14847N 9971E  
alt. 5097

RWY 17-35	6077 X 78
RWY 10-28	4247 X 59





## Albuquerque, Coronado

14841N 10003E  
alt. 5281

RWY 17-35 4017 X 59  
RWY 3-21 3499 X 39



## Albuquerque, Double Eagle II

14835N 9919E  
alt. 5835

RWY 4-22 7399 X 98



## Alpine

12528N 10561E  
alt. 4513

RWY 1-19 5599 X 72  
RWY 5-23 4621 X 39



## Anton Chico (VOR)

14710N 10537E  
freq. 110

## Artesia (NDB)

13703N 10575E  
freq. 414

## Artesia

13716N 10568E  
alt. 3549

RWY 12-30 5398 X 147  
RWY 3-21 6297 X 147  
RWY 8-26 6799 X 147



## Belen, Alexander

14629N 9867E  
alt. 5182

RWY 3-21 4798 X 59



## Brewster Co. (NDB)

12645N 10682E  
freq. 201

## Capriozo

14142N 10116E  
alt. 5369

RWY 6-24 4897 X 72



## Carlsbad (VOR)

13429N 10622E  
freq. 116.3

## Carlsbad, Cavern City

13484N 10608E  
alt. 3293

RWY 3-21 7952 X 147  
RWY 14 32 5828 X 147  
RWY 8 26 5474 X 147  
RWY 14 32 4705 X 147



## Carlsbad, Seven Rivers

13604N 10565E  
alt. 3353

RWY 10-28 5109 X 49



## Clovis

14305N 11169E  
alt. 4215

RWY 4 22 6199 X 147  
RWY 12-30 5697 X 147



## Deming (VOR)

13430N 10254E  
freq. 115.5

## Deming (VOR)

14991N 11148E  
freq. 112

## Dell City

1401N 10244E  
alt. 3700

RWY 8-26 4693 X 59



## Deming (VOR)

13551N 9389E  
freq. 108.6

## Deming

13577N 9355E  
alt. 4310

RWY 8 26 5505 X 72  
RWY 4-22 5598 X 59



## El Paso Int'l

13427N 9802E  
alt. 3956

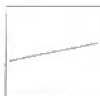
RWY 4 22 11010 X 147  
RWY 8 26 9005 X 147  
RWY 8-26 5490 X 72



## El Paso, West Texas

13380N 9838E  
alt. 4008

RWY 8-26 4099 X 29



## Española

15165N 10251E  
alt. 5789

RWY 16-34 4998 X 49



## Eunice

13475N 10984E  
alt. 3569

RWY 0-18 3598 X 72



## Fabens

13285N 9861E  
alt. 3660

RWY 8-26 4198 X 59  
RWY 16-34 2299 X 22



## Florida (NDB)

14397N 9797E  
freq. 329

## Fort Sumner

14393N 10775E  
alt. 4165

RWY 8-26 4696 X 49  
RWY 3-21 5398 X 72



## Gallup (VOR)

15128N 9220E  
freq. 115.1

## Gallup

15129N 9265E  
alt. 6468

RWY 6-24 5297 X 98



## Grants-Milan

14928N 9534E  
alt. 6521

RWY 13-31 5297 X 59



## Hatch

13800N 10577E  
alt. 4146

Rwy 11-29 2029 X 42



## Jal

13334N 10094E  
alt. 3116

Rwy 1-19 3598 X 59  
Rwy 9-27 2597 X 49



## Hobbs (VOR)

13537N 10997E  
freq. 111

## Hobbs, Lea Co.

13573N 11006E  
alt. 3550

Rwy 3-21 7396 X 147  
Rwy 12-30 5999 X 47  
Rwy 17-35 4995 X 47  
Rwy 8-26 3509 X 47



## Las Cruces (NDB)

13619N 9638E  
freq. 299

## Las Cruces - Crawford

13632N 9542E  
alt. 4454

Rwy 4-22 7501 X 98  
Rwy 12-30 7491 X 147  
Rwy 8-25 6071 X 98



## Holloman (VOR)

13859N 9982E  
freq. 108.2

## Hudspeth (VOR)

13248N 10133E  
freq. 115

## Isleta (NDB)

14756N 9967E  
freq. 230

## Las Vegas (NM) (VOR)

14952N 10547E  
freq. 117.3

## Las Vegas, NM

14949N 10536E  
alt. 6865

Rwy 2-20 4996 X 72  
Rwy 14-32 4936 X 49



## Lordsburg

13777N 9007E  
alt. 4297

Rwy 12-30 4998 X 49



## Los Lunas, Mid Valley

14673N 9912E  
alt. 4831

Rwy 17-35 4359 X 49



## Lovington (NDB)

13582N 10970E  
freq. 396

## Lovington, Lea Co

13695N 10959E  
alt. 3975

Rwy 3-21 4598 X 72  
Rwy 12-30 2951 X 49



## Marathon (NDB)

12531N 10816E  
freq. 388

## Marfa (VOR)

12597N 10552E  
freq. 115.9

## Marfa

12639N 10537E  
alt. 4848

Rwy 3-21 5297 X 147  
Rwy 12-30 5297 X 72



## Newman (VOR)

13482N 9838E  
freq. 112.4

## Otto (VOR)

14750N 10217E  
freq. 114

## Pecos (VOR)

13075N 10789E  
freq. 111.8

## Pecos City

13040N 10809E  
alt. 2617

Rwy 9-27 7139 X 147  
Rwy 13-31 6254 X 98  
Rwy 0-18 3749 X 147



## Pinon (VOR)

136140 10240  
freq. 110.4

## Portales (NDB)

14209N 11064E  
freq. 407

## Portales

14216N 11052E  
alt. 4021

RWY 2-20 5228 X 59  
RWY 9-27 2538 X 42



## Presidio, Lely Int'l

12348N 10346E  
alt. 2932

RWY 17-35 4496 X 72



## Roswell (VOR)

13919N 10556E  
freq. 116.1

## Roswell Industrial

13919N 10575E  
alt. 3670

RWY 3-21 12998 X 298  
RWY 17-35 9997 X 196  
RWY 12-30 7412 X 196



## Ruidoso (NDB)

13994N 10183E  
freq. 332

## Ruidoso

14003N 10181E  
alt. 6911

RWY 0-18 5497 X 72



## Salt Flat (VOR)

13303N 10255E  
freq. 113

## Santa Fe (VOR)

14950N 10209E  
freq. 110.6

## Santa Fe Co.

14993N 10203E  
alt. 6344

RWY 2-20 6321 X 147  
RWY 15-33 6300 X 147  
RWY 10-29 6294 X 98



## Santa Rosa

14514N 10660E  
alt. 4782

RWY 8-26 4398 X 49



## Silver City (VOR)

13862N 9218E  
freq. 111.8

## Silver City - Grant Co

13870N 9229E  
alt. 5442

RWY 8-26 6799 X 98



## Socorro (VOR)

14493N 9845E  
freq. 115.8

## Socorro

14369N 9791E  
alt. 4851

RWY 15-33 5844 X 98



## Springerville (NDB)

14608N 8939E  
freq. 224

## St. Johns (VOR)

14704N 9018E  
freq. 112.3

## Tatum, Lea Co

13821N 11027E  
alt. 3985

RWY 5-23 2997 X 72  
RWY 12-30 2387 X 49



## Texico (VOR)

14317N 11276E  
freq. 112.2

## Topan (NDB)

13921N 10621E  
freq. 305

## Truth or Consequences (VOR)

14071N 9591E  
freq. 112.7

## Truth or Consequences

14059N 9591E  
alt. 4861

RWY 13-31 5599 X 72



## Tucumcari (VOR)

14655N 11052E  
freq. 113.6

## Tucumcari

14658N 11039E  
alt. 4064

RWY 3-21 7097 X 98  
RWY 8-26 4874 X 147



## Valle (NDB)

13446N 9814E  
freq. 242

## Van Horn (NDB)

12985N 10304E  
freq. 233

## Van Horn, Culberson Co.

12989N 10312E  
alt. 3956

RWY 3-21 5999 X 98  
RWY 7-25 5999 X 118  
RWY 17-35 5999 X 124



## Wink (VOR)

13225N 10944E  
freq. 112.1

## Wink, Winkler

13183N 10951E  
alt. 2818

RWY 13-31 4426 X 98  
RWY 4-22 3499 X 98



## Zuni (VOR)

14934N 907CE  
freq. 113.4

## Zuni Pueblo, Black Rock

14953N 9223E  
alt. 6455

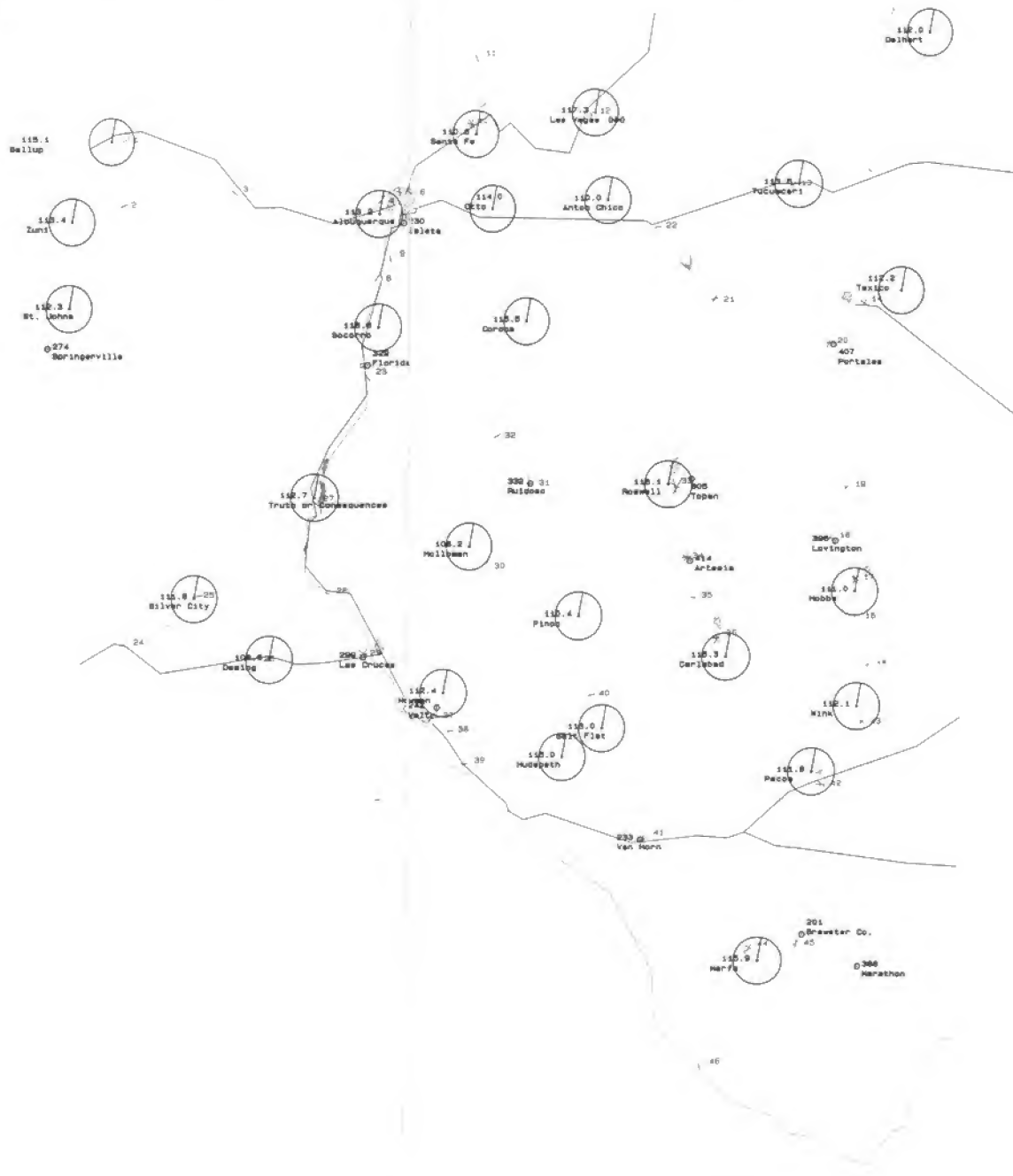
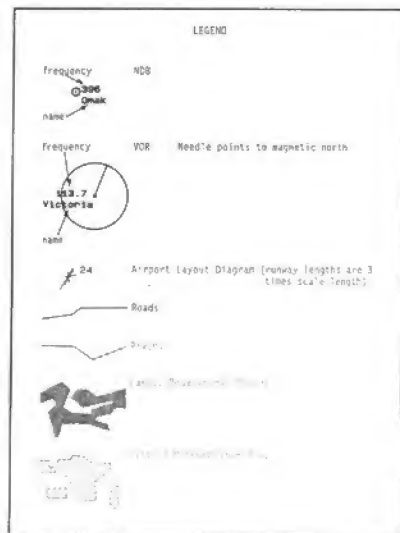
RWY 7-25 4798 X 49





# ALBUQUERQUE AND EL PASO SECTIONALS

- 1 Gallup
- 2 Zuni Pueblo, Black Rock
- 3 Grants-Milan
- 4 Albuquerque, Double Eagle II
- 5 Albuquerque, Alameda
- 6 Albuquerque, Coronado
- 7 Albuquerque Int'l
- 8 Belen, Alexander
- 9 Los Lunas, M.R. Valley
- 10 Santa Fe Co.
- 11 Espanola
- 12 Las Vegas, NM
- 13 Tucuman
- 14 Clovis
- 15 Jai
- 16 Eunice
- 17 Hobbs, Lea Co.
- 18 Lovington, Lea Co.
- 19 Tatum, Lea Co.
- 20 Portales
- 21 Fort Sumner
- 22 Santa Rosa
- 23 Socorro
- 24 Lordsburg
- 25 Silver City - Grant Co.
- 26 Deming
- 27 Truth or Consequences
- 28 Hatch
- 29 Las Cruces - Crawford
- 30 Alamogordo - White Sands
- 31 Bland
- 32 Capitan
- 33 Roswell Industrial
- 34 Artesia
- 35 Carlsbad, Seven Rivers
- 36 Carlsbad, Cavern City
- 37 El Paso Int'l
- 38 El Paso, West Texas
- 39 Fabens
- 40 Del Rio City
- 41 Van Horn, Culberson Co.
- 42 Pecos City
- 43 Wink, Winkler
- 44 Marfa
- 45 Alpine
- 46 Presidio, Lely Int'l



Ajo

14221N 7505E  
alt. 1460

RNY 12-30 3790 X 59



Bard (VOR)

14524N 6902E  
freq. 116.8

Blythe (VOR)

14888N 6951E  
freq. 117.4

Blythe

14896N 6994E  
alt. 397

RNY 8-26 6559 X 147  
RNY 17-35 5818 X 147



Brawley

14720N 6639E  
alt. 0

RNY 8-26 4444 X 59



## Buckeye (VOR)

14631N 7614E  
freq. 110.6

## Buckeye

14610N 7679E  
alt. 1023

RWY 16-34 3499 X 59



## Bullhead City

15521N 7241E  
alt. 548

RWY 17-35 5034 X 59



## Calexico

14555N 6599E  
alt. 0

RWY 8-26 4329 X 72



## Calipatria

14259N 6653E  
alt. 0

RWY 8-26 3329 X 36  
RWY 12-30 2522 X 36



## Casa Grande (VOR)

14302N 7873E  
freq. 114.8

## Casa Grande

14328N 7947E  
alt. 1450

RWY 5-23 5198 X 72



## Chandler (VOR)

14453N 8010E  
freq. 113.3

## Chandler, Stellar Airpark

14485N 7932E  
alt. 1174

RWY 17-35 3998 X 68



## Chiriaco Summit

15026N 6659E  
alt. 1712

RWY 6-24 4598 X 72



## Coolidge Muni.

14286N 8053E  
alt. 1588

RWY 5-23 5549 X 147  
RWY 17-35 3788 X 147



## Douglas Bisbee, Bisbee Douglas Int'l

13506N 6555E  
alt. 4159

RWY 17-35 7291 X 147  
RWY 8-26 6999 X 147



## Flagstaff (VOR)

15236N 8213E  
freq. 108.2

## Flagstaff, Pulliam

15230N 8224E  
alt. 7013

RWY 3-21 6996 X 147



## Fort Huachuca, Libby - Sierra Vista

13623N 8308E  
alt. 4564

RWY 11-29 5362 X 98  
RWY 2-20 4796 X 72



## Gallup (VOR)

15128N 9220E  
freq. 115.1

## Gila Bend (VOR)

14407N 7608E  
freq. 116.5

## Gila Bend

14416N 7625E  
alt. 777

RWY 4-22 3798 X 75



## Globe (NDB)

14584N 8365E  
freq. 255

## Globe - San Carlos

14393N 8375E  
alt. 3234

Rwy 9-27 4749 X 72



## Imperial (VOR)

14614N 6580E  
freq. 115.3

## Imperial Co.

14662N 6595E  
alt. 0

Rwy 14-32 5303 X 98



## Goetts (VOR)

15576N 7004E  
freq. 114.4

## Holbrook

15010N 8729E  
alt. 5245

Rwy 3-21 4739 X 72



## Kingman (VOR)

15503N 7445E  
freq. 108.8

## Kingman

15499N 7453E  
alt. 3447

Rwy 3-21 6828 X 142  
Rwy 17-35 6723 X 147



## Holville

14633N 6706E  
alt. 59

Rwy 8-26 5899 X 147



## Lake Havasu

15215N 7218E  
alt. 482

Rwy 5-23 6432 X 98



## Love

15097N 79.2E  
alt. 5041

Rwy 3-21 6707 X 147  
Rwy 11-29 4405 X 72



## Needles

15354N 7170E  
alt. 99

Rwy 11-29 4693 X 147  
Rwy 2-20 4793 X 147



## Marana, Pinal Airport

14100N 8052E  
alt. 1393

Rwy 12-30 6848 X 147  
Rwy 8-26 6687 X 147



## Nogales Int'l

13597N 8102E  
alt. 3933

Rwy 3-21 5999 X 91



## Mesa, Falcon

14535N 8015E  
alt. 1394

Rwy 4-22 5097 X 98  
Rwy 4-22 3798 X 72



## Papago (NDB)

14543N 7912E  
freq. 326

## Parker (VOR)

15095N 7043E  
freq. 117.9

## Payson

14833N 7450E  
alt. 7450

Rwy 8-26 4597 X 59



## Mexicali (VOR)

14532N 6665E  
freq. 115

## Needles (VOR)

15351N 7199E  
freq. 115.2

## Peach Springs (VOR)

15617N 7624E  
freq. 112

## Phoenix (VOR)

14531N 7942E  
freq. 115.6

## Phoenix - Litchfield

14581N 7785E  
alt. 958

Rwy 3 21 8498 X 147



## Phoenix Int'l ( Sky Harbor )

14552N 7914E  
alt. 1132

Rwy 8-26 10997 X 147  
Rwy 8-26 10299 X 147



## Phoenix, Deer Valley

14564N 7919E  
alt. 1476

Rwy 7-25 5297 X 98  
Rwy 7-25 3798 X 72



## Prescott (VOR)

15125N 7882E  
freq. 114.1

## Safford

14092N 8690E  
alt. 3175

Rwy 8-26 4808 X 98  
Rwy 12-30 4821 X 98



## Scottsdale (NDB)

14618N 7959E  
freq. 224

## Scottsdale

14620N 7971E  
alt. 1509

Rwy 3 21 8249 X 72



## Searchlight

15671N 7161E  
alt. 3405

Rwy 16-34 5038 X 68



## Sedona (NDB)

15115N 8127E  
freq. 334

## Sedona

15121N 8152E  
alt. 4928

Rwy 3-21 5133 X 72



## Show Low (NDB)

14712N 8598E  
freq. 206

## Show Low

14717N 8703E  
alt. 6412

Rwy 6-24 5999 X 72  
Rwy 3-21 3919 X 59



## Silver City (VOR)

13862N 9218E  
freq. 111.8

## Springerville (NDB)

14606N 8939E  
freq. 274

## Springerville

14604N 8931E  
alt. 7052

Rwy 3-21 5598 X 72



## St. Johns (VOR)

14704N 9019E  
freq. 112.3

## St. Johns

14769N 8949E  
alt. 5733

Rwy 13-31 5297 X 72  
Rwy 2-20 3398 X 72



## Tucson Int'l

13889N 8159E  
alt. 2631

Rwy 11-29 12001 X 147  
Rwy 11-29 9128 X 72  
Rwy 3-21 6999 X 147





## Tuscon, Avra Valley

14048N 8079E  
alt. 2024

RWY 3-21 4198 X 72  
RWY 12-30 2997 X 72



## Tuscon, Ryan

13932N 8064E  
alt. 2414

RWY 6-24 5497 X 72



## Twentynine Palms (VOR)

15216N 6667E  
freq. 114.2

## Twentynine Palms

15238N 6638E  
alt. 1905

RWY 8-26 5526 X 45  
RWY 17-35 3798 X 49



## Whiteriver

14523N 8663E  
alt. 5153

RWY 1-19 5268 X 72



## Wickenburg

14850N 7703E  
alt. 2424

RWY 5-23 5047 X 59



## Winslow (VOR)

15118N 8509E  
freq. 112.6

## Winslow

15094N 8536E  
alt. 4935

RWY 4-22 7454 X 147  
RWY 11-29 7161 X 147  
RWY 17-35 6248 X 147



Yuma [16°]

14471N 5315E  
alt 213

Ray 3-21	13297 x 196
Ray 3-21	9236 x 147
Ray 8-26	6143 x 147
Ray 17-35	5707 x 147

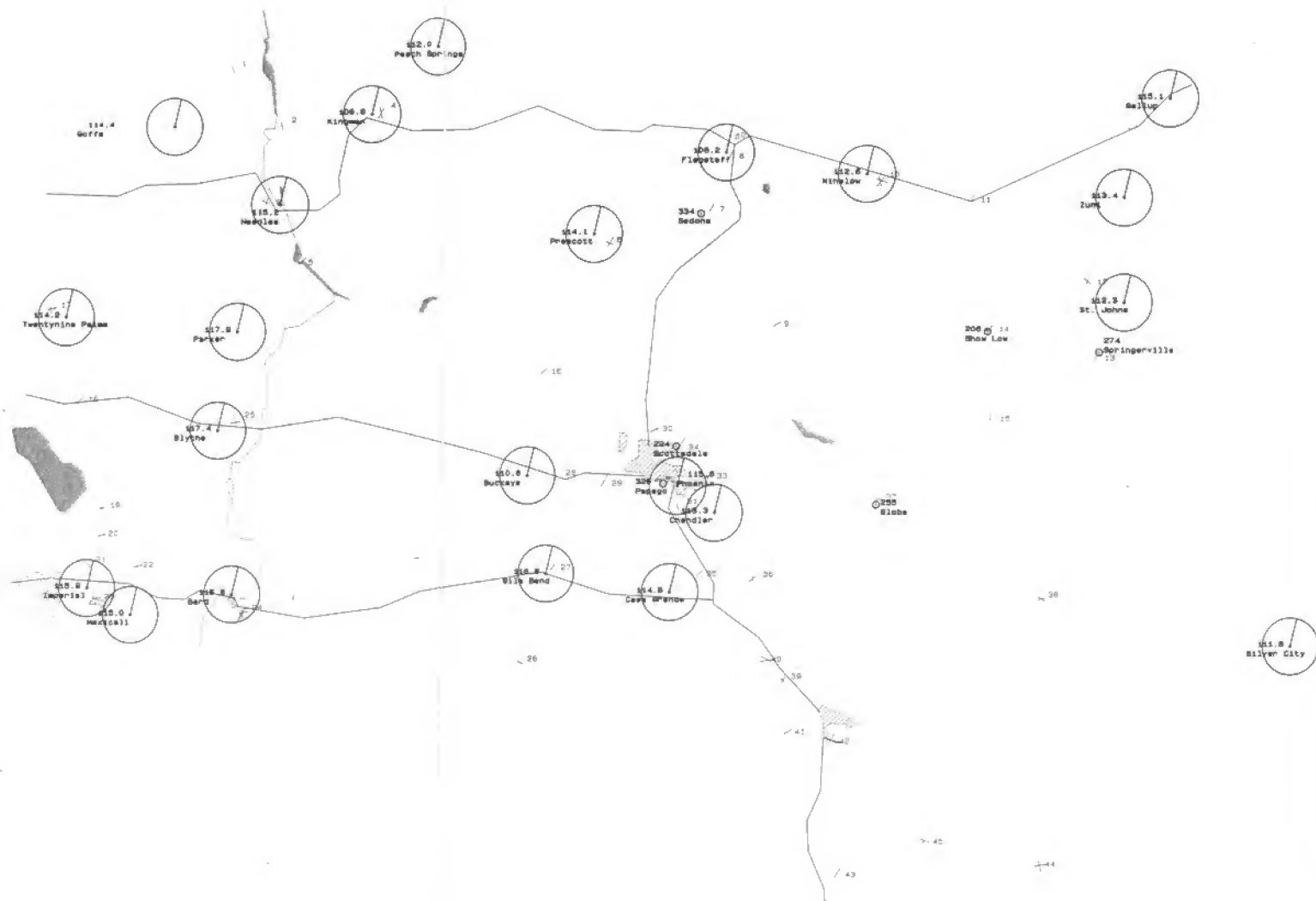
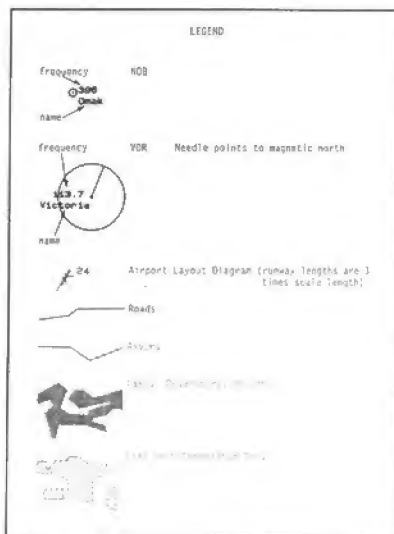


Zuni [40R]

14934N 9070E  
Freq. 113.4

# PHOENIX SECTIONAL

- 1 Searchlight
- 2 Bullhead City
- 3 Needles
- 4 Kingman
- 5 Lake Havasu
- 6 Love
- 7 Sedona
- 8 Flagstaff, Pulliam
- 9 Payson
- 10 Winslow
- 11 Holbrook
- 12 St. Johns
- 13 Springerville
- 14 Show Low
- 15 Witts Ferry
- 16 Wickenburg
- 17 Twentynine Palms
- 18 Chiricahua Summit
- 19 Calipatria
- 20 Brawley
- 21 Imperial Co.
- 22 Holtville
- 23 Calexico
- 24 Yuma Int'l
- 25 Blythe
- 26 Kjo
- 27 Elia Bend
- 28 Buckeye
- 29 Phoenix - Litchfield
- 30 Phoenix, Deer Valley
- 31 Chandler, Stellar Airport
- 32 Phoenix Int'l (Sky Harbor)
- 33 Mesa, Falcon
- 34 Scottsdale
- 35 Casa Grande
- 36 Coolidge Muni.
- 37 Globe - San Carlos
- 38 Safford
- 39 Tucson, Avra Valley
- 40 Marana, Pinal Airport
- 41 Tucson, Ryan
- 42 Tucson Int'l
- 43 Nogales Int'l
- 44 Douglas Bisbee, Bisbee Douglas Int'l
- 45 Fort Huachuca, Libby - Sierra Vista



## Austin

17495N 7000E  
alt. 5730

RWY 12-30 5999 x 147  
RWY 0-18 5999 x 147



## Beatty (VOR)

16343N 6798E  
freq. 114.7

## Beatty

16382N 6791E  
alt. 3168

RWY 16-34 5628 x 49



## Beaver

15548N 9314E  
alt. 5852

RWY 13-31 4496 x 72



## Boulder City (VOR)

15908N 7328E  
freq. 116.7

## Boulder City

15811N 7319E  
alt. 2460

RWY 3-21 2951 X 59



## Cedar City

16361N 8113E  
alt. 5622

RWY 2-20 7799 X 147  
RWY 8-26 5193 X 59



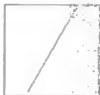
## Bryce Canyon (VOR)

16275N 8396E  
freq. 112.8

## Bryce Canyon

16278N 8429E  
alt. 7587

RWY 3-21 7399 X 147



## Carbon (VOR)

16218N 6619E  
freq. 117.7

## Bryce Canyon (VOR)

16278N 8429E  
alt. 7587

## Delta (VOR)

16978N 8512E  
freq. 116.1

## Carbon (VOR)

16958N 9123E  
freq. 109

## Cedar City (VOR)

16389N 8151E  
freq. 108.6

## Delta

17010N 8456E  
alt. 4756

RWY 16-34 6098 X 72  
RWY 12-30 5933 X 81



## Ely (VOR)

17192N 7743E  
freq. 110.6

## Ely - Yelland

17193N 7729E  
alt. 5255

RWY 0-18 5995 X 147  
RWY 12-30 4979 X 98



## Eureka

17429N 7338E  
alt. 5947

RWY 17-35 4778 X 59



## Grand Canyon (VOR)

15530N 8249E  
freq. 113.1

## Las Vegas (Nev) (VOR)

15876N 7241E  
freq. 116.9

## Las Vegas Henderson

15845N 7227E  
alt. 2460

RWY C-18 4998 X 49



## Las Vegas, McCarran

15884N 7234E  
alt. 2175

RWY 7-25 12534 X 147  
RWY 1-19 9774 X 147  
RWY 1-19 4998 X 72



## Las Vegas, North Las Vegas

15948N 7236E  
alt. 2207

RWY 7-25 5001 X 98  
RWY 4-22 3256 X 62  
RWY 12-30 3122 X 62



## Loa, Wayne Wonderland

16509N 8684E  
alt. 7019

RWY 13-31 5897 X 72



## Manti - Ephraim

16915N 8781E  
alt. 5501

RWY 3-21 4867 X 72



## Mercury (NDB)

15133N 7017E  
freq. 326

## Mercury, Desert Rock

16201N 7008E  
alt. 3313

RWY 2-20 7514 X 98



## Milford (VOR)

16626N 8236E  
freq. 112.1

## Milford

16659N 8224E  
alt. 5038

RWY 16-34 4998 X 72



## Mina (VOR)

17210N 6609E  
freq. 115.1

## Mormon Mesa (VOR)

16074N 7623E  
freq. 114.3

## Mt. Pleasant

16967N 8343E  
alt. 5829

RWY 2-20 4257 X 72



## Neph1

17109N 8743E  
alt. 5009

RWY 15-34 4656 X 72



## Page (VOR)

15875N 8594E  
freq. 117.6

## Page

15889N 8577E  
alt. 4310

RWY 15-33 5497 X 147



## Panaca, Lincoln Co.

16524N 7683E  
alt. 4828

Rwy 17-35 4618 X 59



## Richfield (NOB)

16702N 8580E  
freq. 365

## Richfield

16708N 8558E  
alt. 5278

Rwy 1-19 6641 X 72



## St. George (VOR)

16140N 7891E  
freq. 109.8

## St. George

16155N 7875E  
alt. 2939

Rwy 16-34 6097 X 98



## Tonopah (VOR)

16882N 6865E  
freq. 117.2

## Tonopah Test Range (NOB)

16799N 6911E  
freq. 278

## Tonopah

16899N 6849E  
alt. 5425

Rwy 15-33 7160 X 72  
Rwy 11-29 5949 X 72



## Tuba City (VOR)

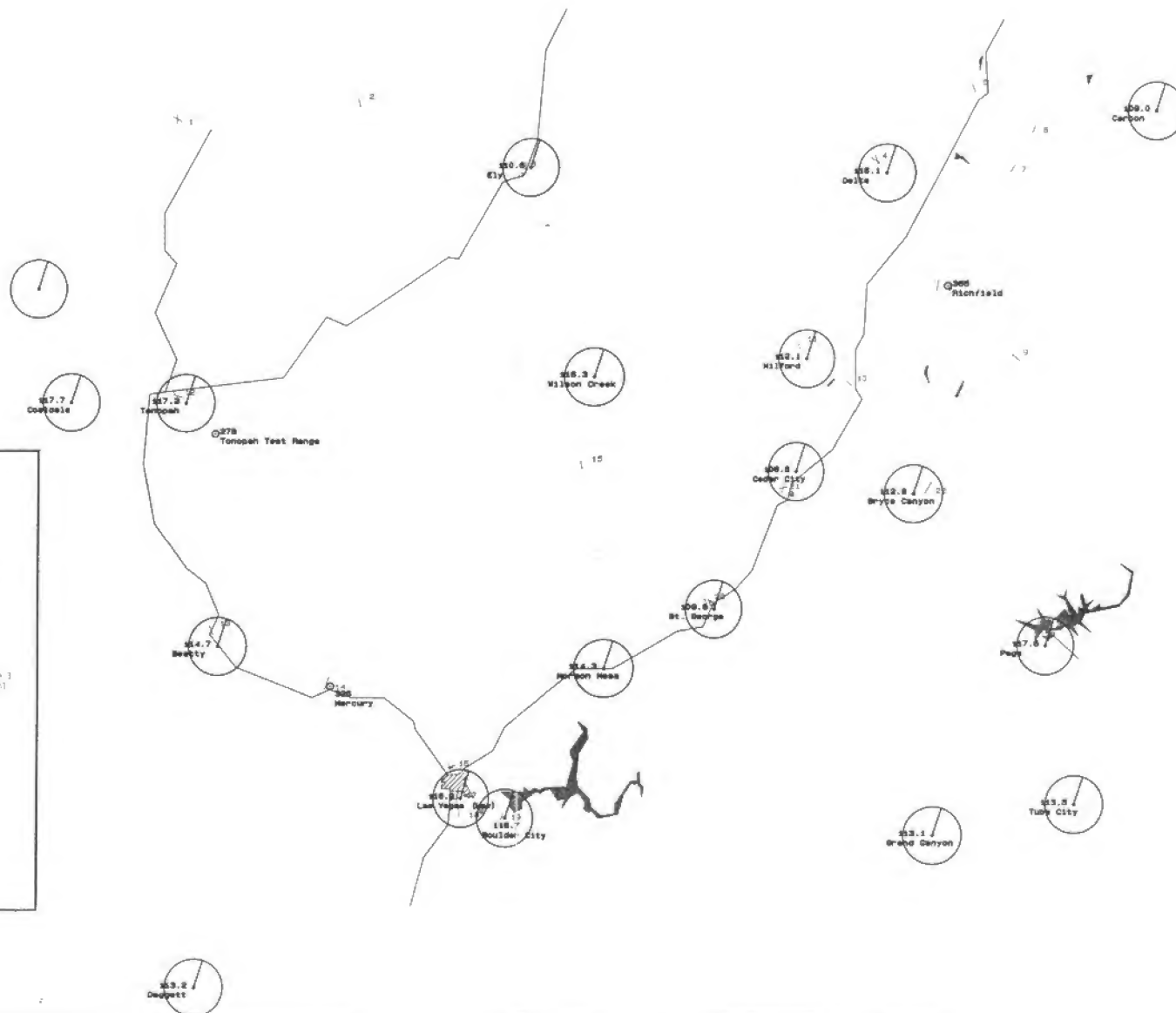
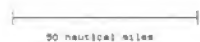
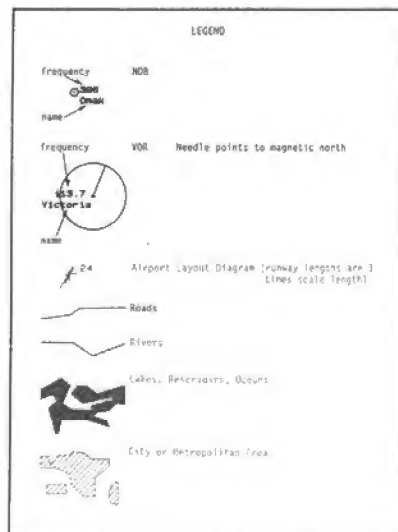
15517N 8569E  
freq. 113.5

## Wilson Creek (VOR)

16708N 7765E  
freq. 116.3



- 1 Austin
- 2 Eureka
- 3 Elly - Tulland
- 4 Delta
- 5 Naphi
- 6 Mt. Pleasant
- 7 Nanti - Ephraim
- 8 Richfield
- 9 Loa, Wayne Wonderland
- 10 Beaver
- 11 Milford
- 12 Tonopah
- 13 Beatty
- 14 Mercury, Desert Rock
- 15 Panaca, Lincoln Co.
- 16 Las Vegas, North Las Vegas
- 17 Las Vegas, McCarran
- 18 Las Vegas Henderson
- 19 Boulder City
- 20 St. George
- 21 Cedar City
- 22 Bryce Canyon
- 23 Page



# Apple Valley

15525N 6307E  
alt. 3060

RWY 0-13 5497 X 147



# Arenal (VOR)

15234N 5420E  
freq. 117.6

# Bakersfield (VOR)

16074N 5758E  
freq. 115.4

# Bakersfield, Meadows.

16053N 5767E  
alt. 489

RWY 12-30 6707 X 147  
RWY 12-30 3699 X 72



# Banning

15214N 6349E  
alt. 2221

RWY 8-26 5198 X 147



7 - LOS ANGELES

Reatty (VOR)

15343N 6798E  
freq. 114.7

Burbank - Glendale - Pasadena

15478N 5861E  
alt. 774

Rwy 15-33 6901 X 147  
Rwy 7-25 6071 X 147



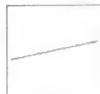
Camarillo (VOR)

15549N 5607E  
freq. 115.8

Camarillo

15553N 5607E  
alt. 79

Rwy 8-26 6018 X 147



Carlsbad, McClellan - Palomar

14926N 6112E  
alt. 328

Rwy 6-24 4595 X 147



China

15315N 6983E  
alt. 649

Rwy 3-21 6202 X 147  
Rwy 8-26 3853 X 147



Compton (NDB)

15333N 5863E  
freq. 378

Compton

15336N 5864E  
alt. 98

Rwy 7-25 3667 X 59  
Rwy 7-25 3667 X 59



Daggett (VOR)

15624N 6558E  
freq. 113.2

Daggett, Barstow - Daggett

15601N 6474E  
alt. 1929

Rwy 7-25 6399 X 147  
Rwy 3-21 5149 X 98



## Fellows (VOR)

15394N 5449E  
freq. 117.5

## Fillmore (VOR)

15589N 5696E  
freq. 112.5

## Gaviota (VOR)

15734N 5302E  
freq. 116.5

## General Fox (NDB)

15633N 5971E  
freq. 282

## Goreman (VOR)

15773N 5757E  
freq. 116.1

## Hemet - Ryan

15155N 6272E  
alt. 1512

Rwy 5-23 4313 X 98  
Rwy 4-22 2943 X 29



## Inyokern - Kern Co

16030N 6203E  
alt. 2457

Rwy 15-33 7334 X 147  
Rwy 2-20 6320 X 72  
Rwy 10-28 4149 X 147



## Julian (VOR)

14852N 5354E  
freq. 114

## La Verne, Brackett

15376N 5044E  
alt. 1010

Rwy 8-25 4837 X 72  
Rwy 3-25 3660 X 72



## Lake Hughes (VOR)

15535N 5840E  
freq. 108.4

## Lancaster, General Fox

15585N 5971E  
alt. 2348

Rwy 6-24 4998 X 147



## Long Beach

15296N 5035E  
alt. 56

RWY 12-30	9997 X 196
RWY 7-25	6189 X 196
RWY 7-25	5418 X 147
RWY 16-34	5021 X 147
RWY 16-34	4253 X 147



## Los Angeles Int'l

15379N 5811E  
alt. 125

RWY 7-25	12030 X 147
RWY 7-25	11993 X 196
RWY 6-24	10282 X 147
RWY 6-24	8924 X 147



## March (VOR)

15184N 6215E  
freq. 113.4

## Mission Bay (VOR)

14774N 5705E  
freq. 112.5

## Mojave

15810N 5033E  
alt. 2763

RWY 12-33	9597 X 196
RWY 7-25	5917 X 59
RWY 4-22	5199 X 49



## Nan Nuys (VOR)

15497N 5816E  
freq. 113.1

## Oceanside (VOR)

14983N 6074E  
freq. 115.3

## Ontario Int'l

15343N 6106E  
alt. 951

RWY 8-25	16197 X 147
RWY 8-25	10000 X 147
RWY 3-21	4749 X 147



## Oxnard

15563N 5557E  
alt. 43

RWY 7-25 5549 X 98



## Palm Springs (VOR)

15153N 6489E  
freq. 113.5

## Palm Springs

15143N 6439E  
alt. 449

RWY 12-30 7012 X 147



## Palmdale (VOR)

15624N 6010E  
freq. 114.5

## Palmdale AF

15628N 6003E  
alt. 2542

RWY 7-25 12001 X 195  
RWY 4-22 11998 X 147



## Paradise (VOR)

15275N 6112E  
freq. 112.2

## Paso Robles (VOR)

16308N 5266E  
freq. 114.3

## Petalis (NOB)

15318N 6197E  
freq. 397

## Poggi (VOR)

14670N 6157E  
freq. 109.8

## Pomona (VOR)

15367N 6041E  
freq. 110.4

## Porterville (VOR)

16245N 5836E  
freq. 109.2

## Priest (VOR)

16520N 5389E  
freq. 110

## Rialto

16352N 6185E  
alt. 1437

RWY 6-24 3568 X 72  
RWY 17-35 1631 X 59



## Riverside (VOR)

15280N 6141E  
freq. 112.4

## Riverside

15284N 6143E  
alt. 817

RWY 9-27 5358 X 98  
RWY 16-34 2673 X 89



## San Diego Int'l - Lindbergh

14755N 6098E  
alt. 15

RWY 9-27 9357 X 196  
RWY 13-31 4437 X 72



## San Diego, Brown

14666N 6155E  
alt. 823

RWY 8-26 2806 X 195  
RWY 28-25 2630 X 68



## San Diego, Gillespie

14769N 6104E  
alt. 364

RWY 9-27 5333 X 98  
RWY 17-35 4145 X 98  
RWY 9-27 2735 X 59



## San Diego, Montgomery

14782N 6125E  
alt. 423

RWY 3-23 3401 X 147  
RWY 10-28 3398 X 147  
RWY 10-28 3398 X 59



## San Luis Obispo (MDB)

16114N 5156E  
freq. 288

## San Luis Obispo (VOR)

16152N 5166E  
freq. 112.4

## San Luis Obispo

16135N 5202E  
alt. 210

RWY 11-25 4798 X 147  
RWY 7-25 3260 X 147



## Santa Ana (VOR)

15209N 5967E  
freq. 109.4

## Santa Anna, John Wayne - Orange Co.

15209N 5965E  
alt. 52

RWY 1 19 5697 X 147  
RWY 1 19 2885 X 72



## Santa Barbara (VOR)

15742N 5409E  
freq. 114.9

## Santa Barbara

15717N 5375E  
alt. 10

RWY 7-25 6048 X 147  
RWY 15-33 4181 X 98  
RWY 15-33 4178 X 72



## Santa Catalina (VOR)

15137N 5739E  
freq. 111.4

## Santa Maria (VOR)

16003N 5209E  
freq. 111

## Santa Maria

15976N 5222E  
alt. 259

RWY 12-30 6297 X 147  
RWY 2-20 5267 X 147



## Santa Monica

15408N 5805E  
alt. 174

RWY 3-21 4985 X 147



## Seal Beach (VOR)

15272N 5915E  
freq. 115.7

## Swan Lake (NDB)

15302N 6012E  
freq. 257

## Taft - Kern Co

15970N 5601E  
alt. 876

RWY 7-25 3968 X 59  
RWY 2 20 1635 X 68





## Thermal (VOR)

15027N 6560E  
freq. 116.2

## Thermal

15030N 6561E  
alt. 0

RWY 12-30 4998 X 147  
RWY 17-35 4998 X 147



## Tijuana (VOR)

14645N 6158E  
freq. 116.5

## Torrance

15311N 5820E  
alt. 102

RWY 11-29 4998 X 147  
RWY 11-29 2997 X 72



## Twentynine Palms (VOR)

15194N 6745E  
freq. 114.2

## Twentynine Palms

15220N 6691E  
alt. 1906

RWY 8-26 5526 X 45  
RWY 17-35 3798 X 49



## Van Nuys

15488N 5815E  
alt 900

RWY 15-34 7999 X 147  
RWY 15-34 3993 X 147



## Ventura (VOR)

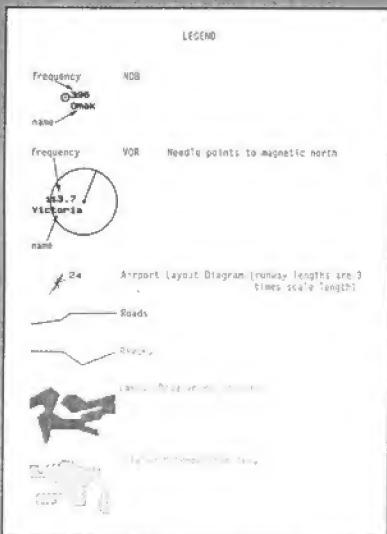
15507N 5609E  
freq. 108.2

## Visalia (VOR)

16468N 5615E  
freq. 109.4

# LOS ANGELES SECTIONAL

- 1 San Luis Obispo
- 2 Santa Maria
- 3 Taft - Kern Co
- 4 Bakersfield, Meadows
- 5 Inyokern - Kern Co
- 6 Mojave
- 7 Daguerre, Barstow - Daguerre
- 8 Apple Valley
- 9 Lancaster, General Fox
- 10 Palmdale, Ar
- 11 Santa Barbara
- 12 Camarillo
- 13 Concord
- 14 Van Nuys
- 15 Burbank - Glendale - Pasadena
- 16 Los Angeles, Downtown
- 17 Ontario, Int'l
- 18 Buena Vista
- 19 Glendale
- 20 Chino
- 21 Santa Monica
- 22 Los Angeles, Int'l
- 23 Torrance
- 24 Compton
- 25 Long Beach
- 26 Santa Ana, John Wayne Orange Co.
- 27 Newport - Ryan
- 28 Burbank
- 29 Thermal
- 30 Palm Springs
- 31 Hemet, Palmdale
- 32 Lancaster, McAllister - Palmdale
- 33 San Diego, Montgomery
- 34 San Diego, Int'l - Lindbergh
- 35 San Diego, Gillespie
- 36 San Diego, Brown



50 nautical miles



## Big Sur (VOR)

16658N 5071E  
freq. 114

## Bishop (VOR)

16757N 6331E  
freq. 109.6

## Casa Diablo (NDB)

15854N 6238E  
freq. 260

## Chandler (NDB)

16661N 5751E  
freq. 344

## Chico (VOR)

18158N 5573E  
freq. 109.3

## Chico

18158N 5567E  
alt. 239

RMW 13-31 6723 X 147  
RMW 13-31 3004 X 59



## Columbia (NDB)

17267N 5759E  
freq. 404

## Columbia

17269N 5753E  
alt. 2116

Rwy 17-35 4057 X 72



## Fresno Air Terminal

16579N 5795E  
alt. 331

Rwy 11-29 9220 X 147  
Rwy 11-29 3899 X 72



## Concord (VOR)

17473N 5234E  
freq. 117

## Concord, Buchanan

17452N 5221E  
alt. 23

Rwy 1-19 4710 X 147  
Rwy 14-32 4598 X 147  
Rwy 14-32 2797 X 72  
Rwy 1-19 2765 X 72



## Friant (VOR)

16786N 5987E  
freq. 115.6

## Garberville

18514N 5010E  
alt. 544

Rwy 0-18 3047 X 72



## Fresno (VOR)

16722N 5786E  
freq. 112.9

## Fresno - Chandler Downtown

16671N 5752E  
alt. 279

Rwy 12-30 3473 X 72  
Rwy 12-30 3440 X 72



## Hangtown (VOR)

17590N 5755E  
freq. 115.5

## Hazen (VOR)

17712N 6434E  
freq. 114.1

## Lake Tahoe (VOR)

17720N 5979E  
freq. 113.2

## Linden (VOR)

17355N 5574E  
freq. 114.8

## Little River, Mendocino Co.

18174N 4895E  
alt. 571

RWY 11-29 5247 X 147



## Livermore

17302N 5251E  
alt. 397

RWY 7-25 4004 X 98



## Lodi, Kingdon

17438N 5460E  
alt. 16

RWY 12-30 3998 X 137



## Lodi

17447N 5503E  
alt. 59

RWY 8-26 3099 X 12  
RWY 12-30 2069 X 22



## Lovelock (VOR)

17891N 6657E  
freq. 116.5

## Marysville (VOR)

17845N 5551E  
freq. 110.8

## Marysville, Yuba Co.

17840N 5550E  
alt. 62

RWY 14-32 6005 X 147  
RWY 5-23 3279 X 147



## Maxwell (VOR)

18012N 5381E  
freq. 110

## McClellan (VOR)

17648N 5536E  
freq. 109.2

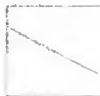
## Merced (VOR)

1693N 5541E  
freq. 114.2

## Merced

16980N 5508E  
alt. 154

RWY 12-30 5900 X 147



## Mina (VOR)

17210N 5509E  
freq. 115.1

## Minden, Douglas Co.

17594N 5104E  
alt. 4717

RWY 16-34 7393 X 147  
RWY 12-30 5287 X 147



## Modesto (VOR)

17170N 5522E  
freq. 114.6

## Modesto City

17172N 5518E  
alt. 98

RWY 10-28 5510 X 147  
RWY 10-28 3450 X 147



## Monterey Peninsula

16862N 5069E  
alt. 243

RWY 10-28 5596 X 147  
RWY 6-24 3998 X 147



## Napa Co.

17571N 5187E  
alt. 33

RWY 0 18 5930 X 147  
RWY 6-24 5005 X 147  
RWY 0 18 2499 X 72



## Oakland, Metro Oakland Intl

17367N 5129E  
alt. 7

RWY 11-29 9997 X 147  
RWY 9-27 6209 X 147  
RWY 15-33 3365 X 72  
RWY 9-27 5451 X 147



## Orville

18003N 5592E  
alt. 200

Rwy 1-19 5959 X 147  
Rwy 12-30 4844 X 147



## Pajar (NDB)

16978N 5131E  
freq. 327

## Panoche (VOR)

16770N 5440E  
freq. 112.6

## Placerville

17591N 5748E  
alt. 2585

Rwy 5-23 4198 X 72



## Point Reyes (VOR)

17588N 4975E  
freq. 113.7

## Porterville

16294N 5898E  
alt. 443

Rwy 12-30 5999 X 144



## Priest (VOR)

15520N 5389E  
freq. 110

## Proberta (NDB)

18340N 5500E  
freq. 338

## Red Bluff (VOR)

18333N 5500E  
freq. 115.7

## Red Bluff

18347N 5500E  
alt. 348

Rwy 15-33 5982 X 147



## Reno (VOR)

17793N 6227E  
freq. 117.9

## Reno Cannon

17788N 6176E  
alt. 4412

RWY 16-34 8997 X 147  
RWY 7-25 5100 X 147  
RWY 16-34 5507 X 72



## Reno/Steard

17875N 6169E  
alt. 5045

RWY 14-32 8078 X 147  
RWY 8-26 7599 X 147



## Sacramento (VOR)

17572N 5455E  
freq. 115.2

## Sacramento Metro

17681N 5477E  
alt. 23

RWY 16-34 8596 X 147



## Sacramento Exec.

17595N 5482E  
alt. 23

RWY 2-20 5500 X 147  
RWY 16-34 3493 X 147  
RWY 12-30 3834 X 98



## Salinas (VOR)

16852N 5163E  
freq. 117.3

## Salinas

16855N 5161E  
alt. 85

RWY 8-25 4992 X 196  
RWY 13-31 4824 X 147  
RWY 3-21 1197 X 147  
RWY 14-32 1899 X 49



## San Francisco Int'l

17340N 5061E  
alt. 10

RWY 9-27 5339 X 98  
RWY 9-27 2735 X 59  
RWY 17-35 4145 X 98





## San Jose, Reid - Hillview

17158N 5194E  
alt. 134

Rwy 13-31 3059 X 72  
Rwy 13-31 3096 X 72



## San Jose

17184N 5165E  
alt. 56

Rwy 12-30 8898 X 147  
Rwy 12-30 4418 X 147  
Rwy 11-29 2997 X 39



## Santa Rosa (VOR)

17758N 5064E  
freq. 113

## Santa Rosa, Sonoma Co.

17756N 5066E  
alt. 125

Rwy 14-32 5113 X 147  
Rwy 1-19 5001 X 147



## Santa Rosa

17711N 5066E  
alt. 98

Rwy 16-34 6887 X 96



## Sausalito (VOR)

17452N 5050E  
freq. 116.2

## Scaggs Island (VOR)

17567N 5149E  
freq. 112.1

## South Lake Tahoe, Lake Tahoe

17570N 6015E  
alt. 6265

Rwy 0-18 8541 X 147



## Sparks (NOB)

17875N 6213E  
freq. 254

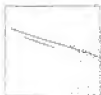
## Stockton (VOR)

17276N 5483E  
freq. 116

## Stockton Metro

17312N 5467E  
alt. 30

RWY 11-29 8649 X 147  
RWY 11-29 2994 X 72



## Visalia

16454N 5831E  
alt. 292

RWY 12-30 6553 X 147



## Travis (VOR)

17565N 5358E  
freq. 116.4

## Watsonville

16995N 5138E  
alt. 161

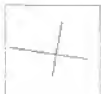
RWY 1-19 4500 X 147  
RWY 8-26 3958 X 147



## Truckee - Tahoe

17761N 6031E  
alt. 5901

RWY 10-28 6399 X 93  
RWY 1-19 4647 X 72



## Williams (VOR)

17888N 5402E  
freq. 114.4

## Willows-Glenn Co.

18027N 5409E  
alt. 139

RWY 13-31 4555 X 98  
RWY 16-34 4503 X 147



## Ukiah (VOR)

18037N 5004E  
freq. 112.3

## Visalia (VOR)

16468N 5815E  
freq. 109.4

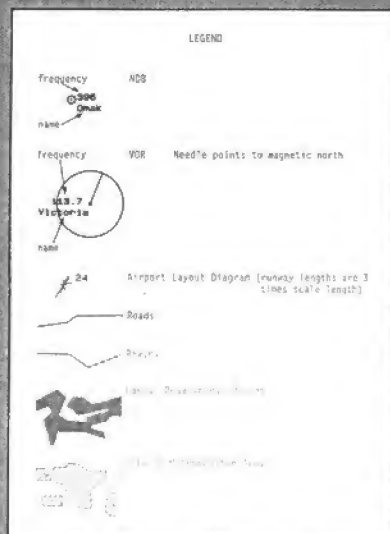
## Woodside (VOR)

17233N 5054E  
freq. 113.9

9. Carlsville
10. Mad Max
11. Chico
12. Willow Glen Co.
13. Orville
14. Romeo/Dead
15. Santa Clara
16. Kinross, Devils Co.
17. Truckee - Tahoe
18. North Lake Tahoe, Lake Tahoe
19. Placerville
20. Marysville, Yuba Co.
21. Little Bear, Wendocino Co.
22. San Jose - Santa Co.
23. Santa Rosa
24. Sacramento Metro
25. Sacramento Metro
26. Columbia
27. Tolet
28. Lady Kingdon
29. Mipa Co.
30. Colcord, Buchanan
31. Colcord, Buchanan
32. San Jose, Santa Clara Co.
33. San Jose, Santa Clara Co.
34. San Francisco
35. San Jose, Santa Clara Co.
36. Livermore
37. Stockton Metro
38. Modesto City
39. Modesto City
40. Fresno Air Terminal
41. Fresno - Chandler Downtown
42. Fresno - Chandler Downtown
43. Porterville
44. Monterey Peninsula
45. Monterey Peninsula
46. Salinas
47. Salinas

3-5

Next comes  
next week  
(maybe)



50 percent of the

## Amsterdam (NOB)

19644N 9581E  
freq. 329

## Anaconda

19941N 9104E  
alt. 5032

Rdy 4-22 4495 X 59



## Beaverhead (NOB)

19546N 9114E  
freq. 373

## Big Timber

19588N 9509E  
alt. 4460

Rdy 6-24 4647 X 72



## Billings (VOR)

19492N 10339E  
freq. 114.5

## Blackfoot (NOB)

20925N 9521E  
freq. 250

## Bonners Ferry, Boundary Co.

21286N 8431E  
alt. 2332

Rwy 2-20 3998 X 72



## Bozeman (VOR)

19655N 9578E  
freq. 112.2

## Bozeman, Gallatin

19658N 9561E  
alt. 4458

Rwy 12-30 9000 X 147



## Butte, Bert Mooney

19819N 9187E  
alt. 5553

Rwy 15-33 8997 X 147  
Rwy 2-20 5543 X 72  
Rwy 11-29 5100 X 72



## Capitol (NDB)

20061N 9435E  
freq. 317

## Challis (NDB)

19359N 8519E  
freq. 207

## Challis

19368N 8516E  
alt. 5071

Rwy 16-34 4598 X 59



## Chester, Liberty Co.

20798N 9883E  
alt. 3169

Rwy 7-25 3197 X 72



## Chinook

20725N 10381E  
alt. 2411

Rwy 8-26 3899 X 59



## Choteau (NDB)

20602N 9497E  
freq. 269

## Choteau

20597N 9482E  
alt. 3946

RWY 5-23 3798 X 59



## Conrad (NDB)

20736N 9605E  
freq. 293

## Conrad

20725N 9569E  
alt. 3536

RWY 5-23 4598 X 72



## Cody (VOR)

19004N 10129E  
freq. 111.8

## Cody, Faust Regional

18980N 10081E  
alt. 5091

RWY 4-22 7104 X 98



## Coppertown (VOR)

19876N 9133E  
freq. 111.6

## Council (NDB)

19645N 7981E  
freq. 274

## Cut Bank (VOR)

20527N 9525E  
freq. 114.4

## Cut Bank

20940N 9504E  
alt. 3854

RWY 13-31 5297 X 72  
RWY 4-22 5297 X 72  
RWY 0-18 3998 X 72



## Coeur D'Alene (VOR)

20948N 8164E  
freq. 108.8

## Coeur D'Alene

20939N 8165E  
alt. 2319

RWY 14-32 5398 X 137  
RWY 5-23 5298 X 137  
RWY 1-19 5398 X 72



## Dell Flight Strip

19333N 8989E  
alt. 6005

RWY 14-32 4998 X 147



## Eureka

21272N 8787E  
alt. 2680

RWY 14-32 4017 X 49



## Desmet (NDB)

20371N 8835E  
freq. 308

## Grain (NDB)

20128N 8106E  
freq. 280

## Dillon (VOR)

19528N 9107E  
freq. 113

## Grangeville, Idaho Co.

20121N 8131E  
alt. 3310

## Dillon

19537N 9095E  
alt. 5238

RWY 16-34 3998 X 72



RWY 7-25 4496 X 59



## Drummond (VOR)

20167N 9072E  
freq. 117.1

## Great Falls (VOR)

20385N 9574E  
freq. 115.1

## Eureka (NDB)

21305N 8800E  
freq. 392

## Great Falls Int'l

20394N 9674E  
alt. 3674

RWY 3-21 10499 X 147  
RWY 16-34 6999 X 147  
RWY 7-25 4306 X 147



## Hamilton (NDB)

20083N 8753E  
freq. 410

## Hamilton, Ravalli Co.

20083N 8747E  
alt. 3638

RWY 16-34 4199 X 72



## Harlowton (NDB)

19840N 10037E  
freq. 242

## Harlowton, Wheatland Co. at Harlowton

19853N 10012E  
alt. 4310

RWY 8-26 4199 X 49



## Hauser (NDB)

20033N 9485E  
freq. 386

## Havre (VOR)

20747N 10256E  
freq. 111.8

## Havre City Co.

20740N 10232E  
alt. 2585

RWY 7-25 5202 X 98



## Helena (VOR)

20051N 9429E  
freq. 117.7

## Helena

20065N 9413E  
alt. 3874

RWY 8-26 8997 X 147  
RWY 5-23 4598 X 72  
RWY 16-34 3152 X 72



## Kalispell (VOR)

20915N 8967E  
freq. 108.4

## Kalispell City

20900N 8914E  
alt. 2932

RWY 13-31 3598 X 58





## Kalispell, Glacier Park Int'l

20955N 8947E  
alt. 2972

Rwy 1-19 3999 X 147  
Rwy 11-29 4723 X 147



## Kellogg, Shoshone Co.

20790N 8311E  
alt. 2224

Rwy 7-25 5497 X 72



## Leeds (NDB)

20742N 10277E  
freq. 389

## Lewiston (VOR)

20371N 7971E  
freq. 108.2

## Lewistown (NDB)

20098N 10181E  
freq. 353

## Lewistown (VOR)

20094N 10161E  
freq. 112

## Lewistown

20084N 10170E  
alt. 4155

Rwy 2-20 5539 X 98  
Rwy 7-25 5535 X 98  
Rwy 12-30 4593 X 72



## Livingston (VOR)

19565N 9782E  
freq. 116.1

## Livingston, Mission

19570N 9762E  
alt. 4553

Rwy 4-22 5697 X 72



## Manno (NDB)

20361N 7971E  
freq. 374

## McCall (VOR)

19634N 7954E  
freq. 116.2

## Missoula (VOR)

20354N 8840E  
freq. 112.8

## Missoula

20356N 8831E  
alt. 3201

RWY 11-29      9498 X 147  
RWY 7-25      4805 X 98



## Mullan Pass (VOR)

20714N 8457E  
freq. 117.8

## Mullan Pass (VOR)

20714N 8457E  
freq. 117.8

## Philipsburg, Riddick

20043N 8989E  
alt. 5212

RWY 16-34      3598 X 59



## Pullman (VOR)

20500N 7877E  
freq. 109

## Salmon (VOR)

19556N 8620E  
freq. 113.5

## Salmon

29586N 8687E  
alt. 4044

RWY 16-34      5198 X 59



## Sand Coulee (VOR)

20390N 9743E  
freq. 115.3

## Sand Poe (NOB)

21145N 8303E  
freq. 254

## Sandpoint, County - City

21134N 8294E  
alt 2125

RWY 1-19      3942 X 72



## Shelby (NOB)

20886N 9653E  
freq. 347

## Shelby

208774 9636E  
alt. 3434

Rwy 5-23      4598 X 72



## Smith Lake (NDB)

20891N 8874E  
freq. 287

## Spokane (VOR)

20907N 7890E  
freq. 115.5

## Townsend

19915N 9524E  
alt. 3900

Rwy 16-34      4099 X 68



## Truly (NDB)

20347N 9677E  
freq. 371

## West Yellowstone, Yellowstone

19193N 9469E  
alt. 6645

Rwy 1-19      8396 X 147



## Whitehall (VOR)

19760N 9265E  
freq. 113.7

## Yellowstone (NDB)

19183N 9479E  
freq. 338

- 1 Bonners Ferry, Boundary Co.
- 2 Sandpoint, County - City
- 3 Coeur d'Alene, Shoshone Co.
- 4 Kallispell, Glacier Park Int'l
- 5 Kallispell City
- 6 Chateau
- 7 Cut Bank
- 8 Shalby
- 9 Conrad
- 10 Chester, Liberty Co.
- 11 Great Falls Int'l
- 12 Harve City, Blaine Co.
- 13 Chinook
- 14 Lewis-Clark
- 15 Missoula
- 16 Kellough, Shoshone Co.
- 17 Coeur d'Alene
- 18 Grangeville, Idaho Co.
- 19 Challis
- 20 Salmon
- 21 Hamilton, Ravalli Co.
- 22 Phillipsburg, Riddlek
- 23 Anaconda
- 24 Butte, Butte County
- 25 Helena
- 26 Dell Flight Strip
- 27 Helena
- 28 West Yellowstone, Yellowstone
- 29 Bozeman, Gallatin
- 30 Townsend
- 31 Livingston, Mississin
- 32 Big Timber
- 33 Great Falls, Wheatland Co. at Harlowton
- 34 Cody, Foothill Region



## Abeta (NDB)

 18912N 5055E  
 freq. 233

## Alkali Lake State

 19309N 6624E  
 alt. 4313

RWY 17-35 6149 x 167



## Alturas (NDB)

 18716N 6231E  
 freq. 215

## Alturas

 18711N 6223E  
 alt. 4376

 RWY 13-31 4296 x 49  
 RWY 3-21 3457 x 59


## Arcata (VOR)

 18923N 5058E  
 freq. 110.2

## Arcata

18914N 5062E  
alt. 216

RWY 13-31      5995 x 147  
RWY 1-19      4496 x 147



## Baker (VOR)

19811N 7453E  
freq. 115.3

## Bandon State

19799N 5311E  
alt. 115

RWY 15-34      2594 x 49



## Bend

19848N 6408E  
alt. 3418

RWY 16-34      3801 x 72



## Bodey (NDB)

19936N 6503E  
freq. 411

## Burns

19413N 7000E  
alt. 4143

RWY 3-21      5057 x 147  
RWY 12-30      5057 x 147



## Chiloquin State

19304N 5982E  
alt. 4218

RWY 17-35      3732 x 42



## Corvallis (VOR)

20263N 5864E  
freq. 108.4

## Council (NDB)

19649N 7881E  
freq. 274

## Crescent City (VOR)

19263N 5145E  
freq. 109

## Denmark, Cape Blanco State

19724N 5243E  
alt. 213

RWY 14-32 5097 X 147



## Eureka, Murray

18840N 5029E  
alt. 7

RWY 11-29 2997 X 72  
RWY 7-25 2027 X 49



## Eugene (VOR)

20102N 5826E  
freq. 112.9

## Eugene, Manion Sweet

20081N 5824E  
alt. 364

RWY 16-34 6199 X 147  
RWY 3-21 5218 X 147



## Fort Jones (VOR)

18954N 5530E  
freq. 109.6

## Fortuna (VOR)

18809N 4955E  
freq. 114

## Fortuna, Rohnerville

18746N 4984E  
alt. 390

RWY 11-29 4024 X 98



## Eureka Muni

18847N 4997E  
alt. 20

RWY 16-34 2699 X 72



## Gold Beach (NDB)

19549N 5194E  
freq. 396

## Gold Beach

19534N 5197E  
alt. 15

Rwy 16-34 3197 X 72



## Goose (NDB)

18977N 6374E  
freq. 278

## Grants Pass (NDB)

19460N 5525E  
freq. 219

## Grants Pass, Josephine Co.

19446N 5524E  
alt. 1122

Rwy 12-30 3993 X 72



## Hayfork

18525N 5273E  
alt. 2322

Rwy 7-25 4113 X 59



## Kimberly (VOR)

19930N 6869E  
freq. 115.6

## Klamath Falls (VOR)

19120N 5968E  
freq. 115.9

## Klamath Falls, Kingsley

19113N 5962E  
alt. 4093

Rwy 14-32	10299 X 147
Rwy 7-25	5257 X 147
Rwy 0-18	5159 X 195



## La Grande (NDB)

20C46N 7472E  
freq. 295

## Lakeview (VOR)

19130N 6393E  
freq. 112

## Lakeview - Lake Co

18970N 6364E  
alt. 4726

Rwy 16-34 5297 X 98





## Lewiston (VOR)

20346N 7937E  
freq. 108.2

## Manno (NDB)

20335N 7935E  
freq. 374

## McCall (VOR)

19634N 7954E  
freq. 116.2

## McNamara

19252N 5150E  
alt. 55

Rwy 11-29 5001 X 147  
Rwy 17-35 5001 X 147



## Medford (VOR)

19393N 5660E  
freq. 113.6

## Medford - Jackson Co.

19334N 5655E  
alt. 1332

Rwy 14-32 5697 X 147  
Rwy 9-27 3142 X 147



## Montague (NDB)

19033N 5970E  
freq. 347

## Montague (NDB)

19033N 5674E  
freq. 382

## Montague - Yreka Rohrer

19034N 5652E  
alt. 2526

Rwy 14-32 3358 X 49



## Montague, Siskiyou Co.

19043N 5681E  
alt. 2634

Rwy 17-35 7481 X 147



## Newport (VOR)

29407N 5613E  
freq. 117.1

## North Bend (VOR)

19922N 5433E  
freq. 112.1

## North Bend

19922N 5414E  
alt. 13

RWY 13-31 5044 X 147  
RWY 4-22 4611 X 147  
RWY 16-34 2299 X 147



## Ontario (NDB)

19420N 7658E  
freq. 395

## Ontario

19408N 7634E  
alt. 2193

RWY 14-32 4529 X 98



## Pendleton (VOR)

20275N 7250E  
freq. 114.7

## Prineville

19895N 6527E  
alt. 3247

RWY 10-28 4998 X 59  
RWY 15-33 3998 X 39



## Proberta (NDB)

18342N 5502E  
freq. 338

## Red Bluff (VOR)

18332N 5500E  
freq. 115.7

## Redding (VOR)

18508N 5545E  
freq. 108.4

## Redding Muni.

18508N 5545E  
alt. 502

RWY 16-34 7002 X 147  
RWY 12-30 5061 X 147



## Redding Sky Ranch

18514N 5511E  
alt. 502

RWY 12-30 2397 X 39



## Redding, Benton

18548N 5519E  
alt. 718

RWY 15-33 2417 X 73



## Redding, Enterprise

13540N 5544E  
alt. 581

RWY 16-34 2656 X 42



## Redmond (VOR)

19943N 6413E  
freq. 117.6

## Redmond, Roberts

19909N 6447E  
alt. 3077

RWY 4-22 7038 X 147  
RWY 10-28 6996 X 147



## Rome (VOR)

18903N 7217E  
freq. 112.5

## Rome State

18892N 7188E  
alt. 4054

RWY 3-21 5999 X 147



## Roseburg (VOR)

19731N 5638E  
freq. 108.2

## Roseburg

19750N 5653E  
alt. 525

RWY 16-34 4598 X 98



## Siskiyou Co. (VOR)

19051N 5686E  
freq. 119.8

## Sisters Eagle Air

19974N 6341E  
alt. 3155

RWY 2-20 3543 X 49



# 14 - KLAMATH FALLS

## Sod House (VOR)

18421N 7010E  
freq. 114.3

## Walla Walla (VOR)

20357N 7490E  
freq. 116.4

## Wildhorse (VOR)

19427N 7018E  
freq. 113.8

## Winnemucca (NDB)

18215N 7013E  
freq. 375

## Winnemucca

18187N 6997E  
alt. 4303

RWY 2-20	4998 X 147
RWY 14-32	4998 X 147



# KLAMATH FALLS SECTIONAL

- 1 Eugene, Mahlon Sweet
- 2 Sisters Eagle Air
- 3 Bend
- 4 Redmond, Roberts
- 5 Prineville
- 6 Burns
- 7 Ontario
- 8 Home State
- 9 Alkali Lake State
- 10 Chiloquin State
- 11 Grants Pass, Josephine Co.
- 12 Medford - Jackson Co.
- 13 Roseburg
- 14 North Bend
- 15 London State
- 16 Denmark, Cape Blanco State
- 17 Gold Beach
- 18 McMaars
- 19 Montague - Treka Rokrep
- 20 Montague, Siskiyou Co.
- 21 Klamath Falls, Kintley
- 22 Lakeview - Lake Co.
- 23 Winnemucca
- 24 Alturas
- 25 Redding, Benton
- 26 Redding Sky Ranch
- 27 Redding Mtn
- 28 Redding Enterprise
- 29 Hayfork
- 30 Fortuna, Humboldt
- 31 Fortuna, Humboldt
- 32 Fortuna Mtn
- 33 Arcata

## LEGEND

frequency HOB

name

frequency VOR

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

frequency

name

Airport layout Diagram (runway lengths are 3 times scale length)

Roads

Rivers

Lakes, Reservoirs, Quivers

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

City or Metropolitan Area

50 nautical miles

14.2  
Pendleton

206  
La Grande

115.3  
Baker

118.9  
274  
Cecil  
Council

115.8  
Kimberly

411  
117.8  
Redmond  
Bodey

113.8  
Wishram

305  
Ontario

112.8  
Home

112.0  
Lakeview

278  
22  
Boose

218  
Alturas

114.3  
Bad House

378  
Winnemucca  
Y 23

117.1  
Newport

108.4  
Corvallis

112.0  
Eugene

114  
112.1  
North Bend

110.2  
Roseburg

300  
Gold Beach

218  
Grants Pass

113.8  
Medford

118  
109.0  
Crescent City

110.8  
109.0  
20  
Blacksburg  
Co 20

110.8  
Fort Jones

110.8  
109.0  
10  
Klamath Falls

114.9  
Fortuna

115.8  
114.9  
27  
Redding

115.7  
114.9  
27  
Red Bluff

## Arlington

21619N 6744E  
alt. 138

RWY 16-34	5329 X 98
RWY 11-29	2797 X 72



## Astoria (VOR)

21017N 5941E  
freq. 114

## Astoria, Port of Astoria

21009N 5937E  
alt. 10

RWY 8-26	5795 X 147
RWY 13-31	5057 X 196
RWY 3-21	3981 X 196



## Baker (VOR)

19811N 7453E  
freq. 115.3

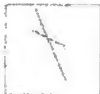
## Bellingham (VOR)

21979N 6763E  
freq. 113

## Bellingham Int'l

21051N 6745E  
alt. 257

RWY 16-34 4000 X 147  
RWY 12-30 2183 X 72



## Deer Park

21051N 8004E  
alt. 2207

RWY 16-34 6097 X 72



## Bremerton Nat'l

21814N 6074E  
alt. 402

RWY 1-19 5297 X 147  
RWY 12-30 2183 X 72



## Ellensburg (VOR)

20975N 7025E  
freq. 117.9

## Ellensburg, Bowers

20986N 7006E  
alt. 1765

RWY 7-25 5549 X 147  
RWY 11-29 4296 X 147



## Bellingham, Shag's Map, Bay View

21772N 6727E  
alt. 141

RWY 10-28 5362 X 147  
RWY 3-21 5080 X 147



## Ephrata (VOR)

21009N 7366E  
freq. 112.6

## Ephrata

20987N 7332E  
alt. 1273

RWY 11-29 7297 X 147  
RWY 2-20 6697 X 147



## Chehalis Centralia

21114N 6271E  
alt. 75

RWY 1-19 4998 X 147  
RWY 15-33 4998 X 147



## Everett, Snohomish Co

21532N 6670E  
alt. 604

RWY 16-34 9006 X 147  
RWY 11-29 4946 X 72  
RWY 3-21 3726 X 147



## Felts

20927N 7989E  
alt. 1952

RWY 3-21 4496 X 147  
RWY 3-21 3056 X 72



## Hoquiam (VOR)

21362N 6002E  
freq. 117.7

## Kelso (NDB)

20899N 6207E  
freq. 256

## Kelso - Longview

20882N 6202E  
alt. 16

RWY 11-29 4391 X 98



## Kitsap (NDB)

21415N 6474E  
freq. 206

## La Grande (NDB)

20046N 7472E  
freq. 295

## Laker (NDB)

20501N 6227E  
freq. 332

## Lewiston (VOR)

20346N 7957E  
freq. 108.2

## Lewiston - Nez Perce

20358N 7894E  
alt. 1437

RWY 8-26 5510 X 147  
RWY 11-29 4398 X 98



## Lummi (NDB)

21913N 6748E  
freq. 385

## Manno (NDB)

20335N 7935E  
freq. 374



## Mason Co (NDB)

21359N 6342E  
freq. 348

## McChord (VOR)

21245N 6492E  
freq. 109.6

## Moses Lake, Grant Co

20930N 7370E  
alt. 1184

RWY 14-32 13500 X 298  
RWY 3-21 9997 X 195  
RWY 0-18 3250 X 72  
RWY 14-32 3024 X 72



## Neah Bay (NDB)

21969N 5139E  
freq. 301

## Newberg (VOR)

20586N 6051E  
freq. 117.4

## Newport (VOR)

20407N 5613E  
freq. 117.1

## Newport

20410N 5615E  
alt. 161

RWY 16-34 5077 X 147  
RWY 2-20 5077 X 147



## Ocean Shores

21386N 6006E  
alt. 10

RWY 14-32 2592 X 59



## Olympia (VOR)

21226N 6345E  
freq. 113.4

## Olympia

21226N 6346E  
alt. 207

RWY 17-35 5398 X 147  
RWY 8-25 4998 X 147



## Omak (NDB)

21458N 7502E  
freq. 395

Omak

21461N 7505E  
alt. 1302

RWY 17-35 4647 X 147



Pendleton

20264N 7276E  
alt. 1492RWY 7-25 6300 X 147  
RWY 11-29 5585 X 147  
RWY 16-34 4149 X 72

Paine (VOR)

21528N 6668E  
freq. 114.2

Pasco (VOR)

20525N 7283E  
freq. 108.4

Pasco, Tri Cities

20524N 7282E  
alt. 407RWY 3-21 7658 X 147  
RWY 12-30 7658 X 147  
RWY 3-21 4427 X 72

Fort Stevens, Fairchild Int'l

24752N 6382E  
alt. 289RWY 8-26 5346 X 147  
RWY 13-31 3243 X 49

Portland (VOR)

20697N 6226E  
freq. 116.6

Portland - Troutdale

20597N 6246E  
alt. 36

RWY 7-25 5398 X 147



Pendleton (VOR)

20275N 7250E  
freq. 114.7

## Portland Hillsboro

20558N 6090E  
alt. 203

Rwy 12-30 6599 X 147  
Rwy 2-20 4047 X 147



## Portland Int'l

20628N 6194E  
alt. 26

Rwy 10-28 11010 X 147  
Rwy 10-28 8003 X 147  
Rwy 2-20 6999 X 147



## Pullman (VOR)

20500N 7877E  
freq. 109

## Pullman - Moscow

20520N 7918E  
alt. 1204

Rwy 5-23 6730 X 98



## Quillayute State

21805N 6064E  
alt. 194

Rwy 4-22 3998 X 72



## Renton (NOB)

21355N 5517E  
freq. 353

## Renton

21355N 6619E  
alt. 30

Rwy 15-33 5375 X 196



## Richland

20550N 7237E  
alt. 390

Rwy 1-19 3998 X 72  
Rwy 7-25 3991 X 98



## Salem, McNary

23413N 5967E  
alt. 210

RWY 13-31 5808 X 147  
RWY 16-34 5133 X 147



## Shelton, Sanderson

21361N 6320E  
alt. 279

RWY 17-35 5290 X 147  
RWY 5-23 5047 X 98



## Seattle (VOR)

21343N 6584E  
freq. 116.8

## Spokane (VOR)

20907N 789CE  
freq. 115.5

## Seattle - Tacoma, Henry M. Jackson

21349N 5584E  
alt. 430

RWY 16-34 11899 X 147  
RWY 15-34 9423 X 147



## Spokane Int'l

20923N 7924E  
alt. 2371

RWY 3-21 8997 X 147  
RWY 7-25 8196 X 147



## Seattle, Boeing Fld/King Co

21379N 6599E  
alt. 16

RWY 13-31 10000 X 196  
RWY 13-31 3709 X 98



## Tacoma Narrows

21310N 6482E  
alt. 292

RWY 17-35 5001 X 147



## Tatoosh (VOR)

21955N 6111E  
freq. 112.2

## The Dalles (VOR)

20514N 6639E  
freq. 112.3

## The Dalles

20483N 6604E  
alt. 243

RWY 12-30 5097 X 147  
RWY 7-25 4647 X 147  
RWY 2-20 4405 X 147



## Tillamook

20715N 5829E  
alt. 36

RWY 13-31 4998 X 147  
RWY 1-19 3998 X 147



## Toledo - Winlock/Ed Carlson

21012N 6286E  
alt. 371

RWY 5-23 4998 X 147



## Victoria (VOR)

21993N 6488E  
freq. 113.7

## Vista

20515N 7246E  
alt. 522

RWY 2-20 3489 X 147  
RWY 11-29 2337 X 147



## Walla Walla (VOR)

20367N 7490E  
freq. 116.4

## Walla Walla City - Co

20371N 7495E  
alt. 1204

RWY 2-20 7186 X 147  
RWY 16-34 6596 X 298  
RWY 7-25 6448 X 298



## Wenatchee (VOR)

21102N 7153E  
freq. 111

## Wenatchee, Pangborn

21100N 7153E  
alt. 1245

RWY 11-29 5497 X 147  
RWY 7-25 4345 X 147



15 SEATTLE

Yakima (VOR)

20797N 6957E  
freq. 115

Yakima

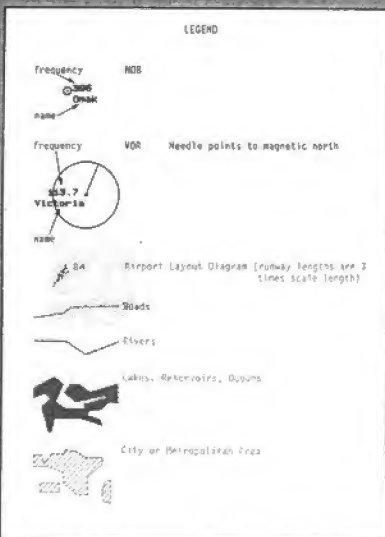
20795N 6928E  
alt. 1036

RAY 9-27 7599 X 147  
RAY 4-22 4290 X 147

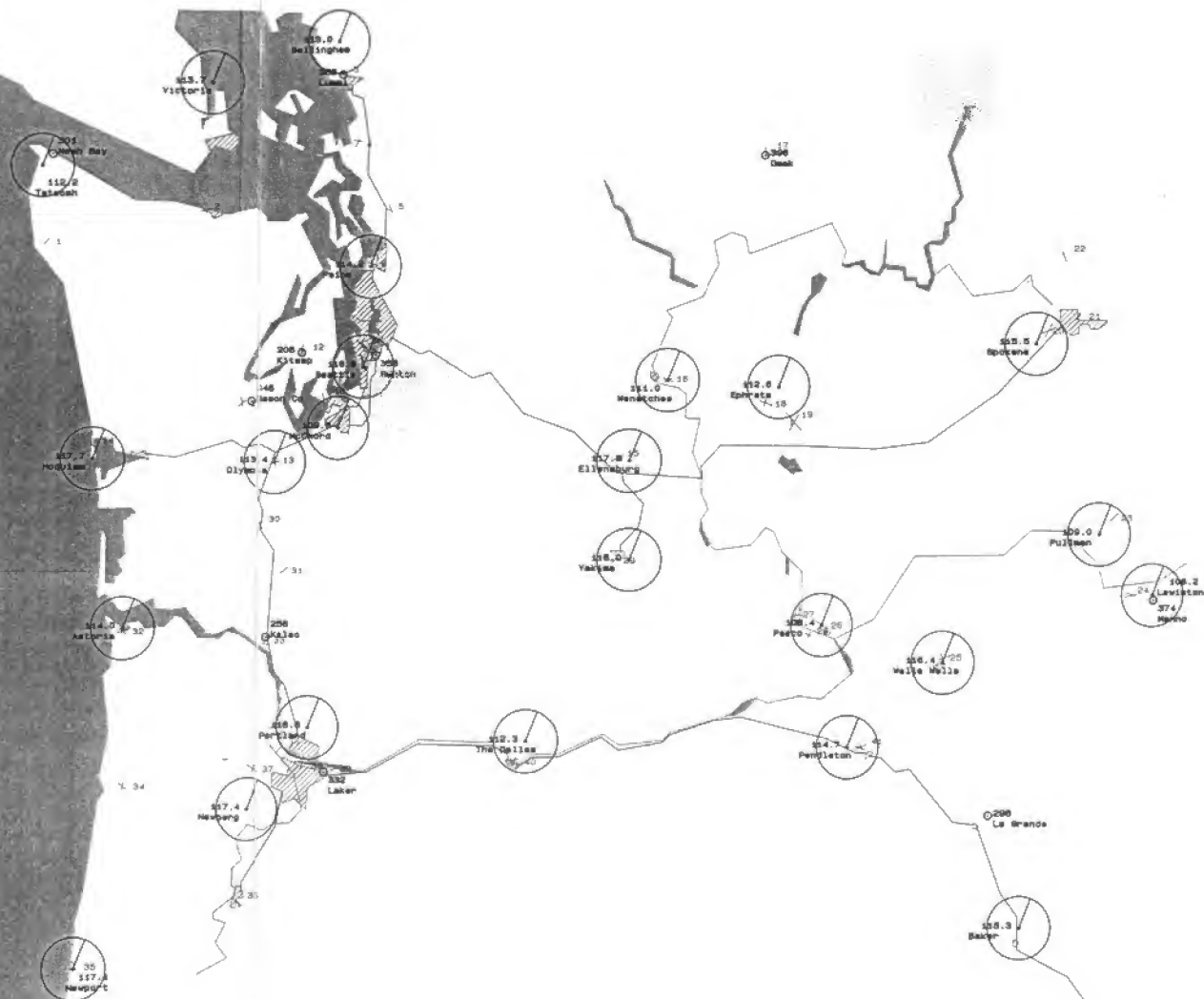


# SEATTLE SECTIONAL

- 1 Callaghan State
- 2 Port Angeles, Fairchild Int'l
- 3 Bellingham Int'l
- 4 Burlington, Chas. B. Day View
- 5 Arlington
- 6 Everett, Snohomish Co
- 7 Brierley
- 8 Seattle - Tacoma, Harry M. Jackson
- 9 Seattle, Boeing F10/King Co
- 10 Tacoma Narrows
- 11 Shelton, Sanderson
- 12 Bremerton Nat'l
- 13 Olympia
- 14 Decatur, Chas.
- 15 Tienburg, Powers
- 16 Wenatchee, Zander
- 17 Yakima
- 18 Isparta
- 19 Moses Lake, Grant Co
- 20 Spokane, Nat'l
- 21 Falls
- 22 Deer Park
- 23 Pullman, Pullman
- 24 Lewiston, Mos Perce
- 25 Walla Walla City - Co
- 26 Pasco, Br. Cities
- 27 Prosser
- 28 Vico
- 29 Tacoma
- 30 Chehalis, Central
- 31 Okanogan, Winlock, Co. Larson
- 32 Astoria, Mac of Astoria
- 33 Ketchikan, Ketchikan
- 34 Tilton, Tilton
- 35 Newport, Newport
- 36 Astoria, Astoria
- 37 Portland, Hallock
- 38 Vancouver, Int'l
- 39 Portland, Troutdale
- 40 The Dalles
- 41 Bremerton



50 nautical miles



## Akron (VOR)

16767N 11508E  
freq. 114.4

## Alliance (VOR)

17554N 11750E  
freq. 111.8

## Alliance

17554N 11750E  
a'l. 3929

RWY 12-30	5230 X 147
RWY 8-26	6340 X 147
RWY 17-35	6310 X 72



## Antelope (NDB)

17731N 9243E  
freq. 290

## Antioch (NDB)

17544N 11759E  
freq. 287

## Boysen Reservoir (VOR)

18473N 10132E  
freq. 117.8

## Casper (VOR)

18190N 10728E  
freq. 116.2



## Casper, Natrona Co Int'l

18125N 10655E  
alt. 5346

Rwy 3-21 10597 X 147  
Rwy 12-30 8685 X 147  
Rwy 7-25 8678 X 147  
Rwy 16-34 7639 X 147



## Chadron (VOR)

17806N 11620E  
freq. 113.4

## Chadron

17915N 11705E  
alt. 3295

Rwy 2-20 5993 X 98  
Rwy 11-29 4401 X 98



## Chappell

17130N 11801E  
alt. 3680

Rwy 12-30 4008 X 42



## Cherokee (VOR)

17701N 10207E  
freq. 112.2

## Cheyenne (VOR)

17301N 11052E  
freq. 113.1

## Cheyenne

17283N 11045E  
alt. 6157

Rwy 8-26 9197 X 147  
Rwy 12-30 6687 X 147  
Rwy 16-34 4995 X 147



## Craig - Moffat

17162N 10119E  
alt. 6199

Rwy 7-25 5598 X 98



## Crazy Woman (VOR)

18585N 10751E  
freq. 117.3

## Denver (VOR)

16713N 10923E  
freq. 117

## Deryk (NDB)

18652N 11053E  
freq. 380

## Douglas (VOR)

17953N 11024E  
freq. 108.6

## Douglas, Converse Co

17990N 10985E  
alt. 4877

Rwy 10-26 5054 x 72



## Fort Collins Loveland

16990N 10927E  
alt. 5015

Rwy 15-33 6497 x 98



## Fort Collins, Downtown

17051N 10930E  
alt. 4935

Rwy 11-29 4696 x 49



## Fort Morgan

16877N 11313E  
alt. 4566

Rwy 14-32 5221 x 59



## Gill (VOR)

16987N 11082E  
freq. 112.8

## Gillette (VOR)

18684N 11051E  
freq. 114.6

## Gillette - Campbell Co

18683N 11051E  
alt. 4362

Rwy 15-33 7498 x 72  
Rwy 2-20 5799 x 72



## Gordon (NOB)

17860N 11952E  
freq. 414

## Gordon

17861N 11992E  
alt. 3549

RWY 4-22 3899 X 49  
RWY 11-29 2299 X 49



## Greeley - Weld Co

16960N 11051E  
alt. 4658

RWY 9-27 6199 X 72



## Hayden (VOR)

17158N 10190E  
freq. 115.4

## Hayden, Yampa Valley

17137N 10215E  
alt. 6596

RWY 10-28 6996 X 98



## Hays Center (VOR)

16795N 12266E  
freq. 117.7

## Imperial (NDB)

16648N 12041E  
freq. 283

## Imperial

16649N 12042E  
alt. 3273

RWY 13-31 4398 X 98



## Johns (NDB)

18129N 10624E  
freq. 375

## Kimball (NDB)

17234N 11416E  
freq. 317

## Kimball

17235N 11415E  
alt. 4913

RWY 11-29 3699 X 72



## Kremmling (VOR)

16883N 10427E  
freq. 113.8

## Laporte (NDB)

17050N 10930E  
freq. 387

## Laramie (VOR)

17409N 10766E  
freq. 117.6

## Medicine Bow (VOR)

17641N 10716E  
freq. 114.1

## Meeker (VOR)

17007N 9945E  
freq. 115.2

## Meeker

16995N 9955E  
alt. 6389

RWY 3-21 4496 x 59



## Newcastle (VOR)

18421N 11396E  
freq. 108.2

## Newcastle, Mondell

18421N 11395E  
alt. 4166

RWY 13-31 4696 x 72



## Ogallala (NDB)

17116N 12028E  
freq. 212

## Ogallala, Searle

17116N 12029E  
alt. 3280

RWY B-25 4496 x 72  
RWY 13-31 3659 x 49



## Philip (VOR)

18375N 12225E  
freq. 108.4

## Philip

18370N 12244E  
alt. 2204

RWY 12-30 3593 x 72



## Port Morgan (NOB)

16877N 11313E  
freq. 338

## Ranch (NOB)

18436N 11784E  
freq. 254

## Rapid City (VOR)

18399N 11803E  
freq. 112.3

## Rapid City Reg.

18431N 11794E  
alt. 3201

RWY 14-32 8598 X 147



## Rawlins (VOR)

17699N 10334E  
freq. 109.4

## Rawlins

17698N 10334E  
alt. 6819

RWY 4-22 7006 X 98



## Riverton (VOR)

18315N 10050E  
freq. 108.8

## Riverton Reg.

18314N 10048E  
alt. 5524

RWY 10-28 8199 X 147



## Rock Springs (VOR)

17729N 9739E  
freq. 114.7

## Scottsbluff (VOR)

17526N 11523E  
freq. 112.6

## Scottsbluff

17527N 11485E  
alt. 3965

RWY 12-30 8278 X 147  
RWY 17-35 8085 X 147  
RWY 5-23 7999 X 147



## Searle (VOR)

17117N 12026E  
freq. 110.2

## Sidney (VOR)

17160N 11634E  
freq. 115.9

## Sidney

17162N 11634E  
alt. 4313

RWY 12-30 6599 X 98



## Sinclair (NDB)

17689N 10367E  
freq. 368

## Steamboat Springs, Bob Adams - Routt Co. - Stolport

17128N 10331E  
alt. 6878

RWY 14-32 3909 X 98



## Thermopolis, Hot Springs - Thermopolis

18549N 10175E  
alt. 4579

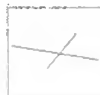
RWY 1-19 4778 X 98



## Torrington

17533N 11319E  
alt. 4205

RWY 10-28 5198 X 72  
RWY 4-22 2797 X 59



## Walden - Jackson Co

17192N 10545E  
alt. 8148

RWY 3-21 5897 X 72



## Wenz (NDB)

18296N 9618E  
freq. 392

## Worland (VOR)

18668N 10288E  
freq. 114.8

## Worland

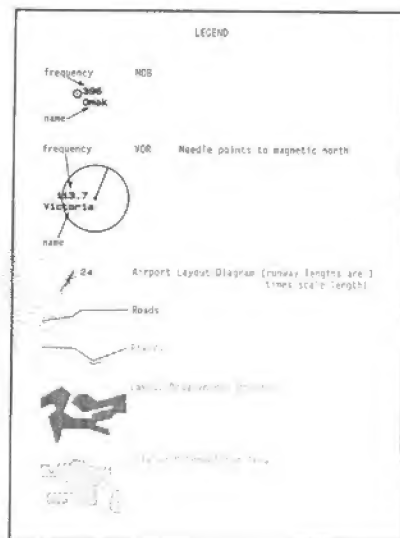
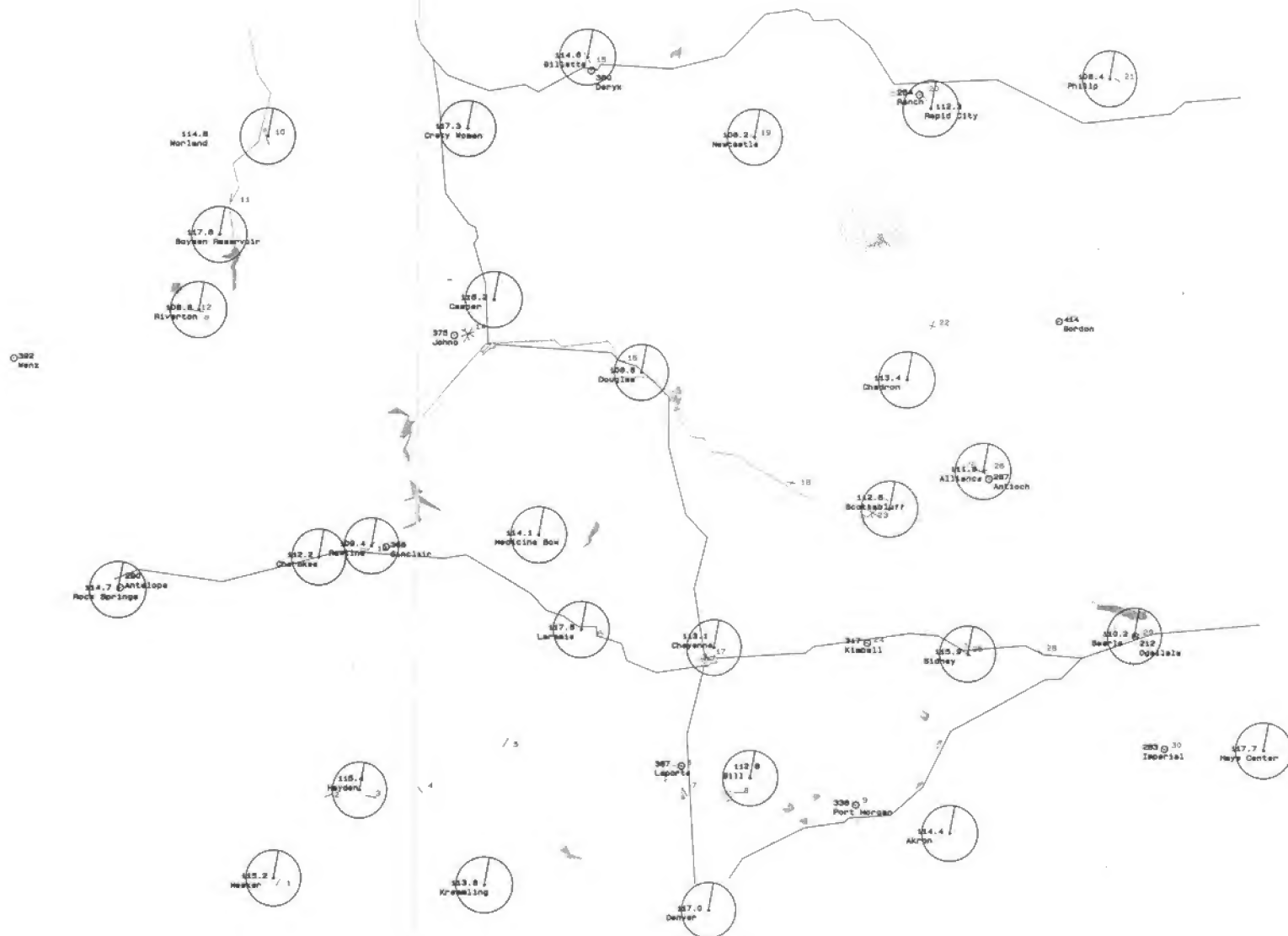
18661N 10285E  
alt. 4244

RWY 16-34 7002 X 98



# CHEYENNE SECTIONAL

- 1 Meeker
- 2 Craig - Moffat
- 3 Hayden, Yampa Valley
- 4 Steamboat Springs, Bob Adams - Routt Co. - Stolport
- 5 Walden - Jackson Co
- 6 Fort Collins, Downtown
- 7 Fort Collins Loveland
- 8 Greeley - Weld Co
- 9 Fort Morgan
- 10 Worland
- 11 Thermopolis, Hot Springs - Thermopolis
- 12 Buerton, Reg.
- 13 Rawlins
- 14 Casper, Matrona Co (nt'l)
- 15 Gillette - Campbell Co
- 16 Douglas, Converse Co
- 17 Cheyenne
- 18 Torrington
- 19 Newcastle, Mondak
- 20 Rapid City Reg.
- 21 Philip
- 22 Chadron
- 23 Scottsbluff
- 24 Kimball
- 25 Sidney
- 26 Alliance
- 27 Gordon
- 28 Chappell
- 29 Ogallala, Searle
- 30 Imperial



50 nautical miles

## Alamosa (VOR)

15716N 10442E  
freq. 113.9

## Alamosa - Bergman

15751N 10434E  
alt. 7534

RAY 2-20 8498 X 98



## Aspen - Pitkin Co, Sardy Fld.

15576N 10225E  
alt. 7793

RAY 15-33 7002 X 98



## Aztec (NM)

15537N 9647E  
alt. 5878

RAY 8-26 4295 X 49  
RAY 4-22 2847 X 39





## Blanding

16054N 9221E  
alt. 5855

RWY 17-35 5999 X 68



## Canyonlands

16555N 9236E  
alt. 4576

RWY 15-33 6897 X 137



## Carbon (VOR)

16996N 8986E  
freq. 109

## Cimarron (VOR)

15298N 10704E  
freq. 116.4

## Colorado Springs (VOR)

16337N 10923E  
freq. 112.5

## Colorado Springs

16279N 10916E  
alt. 6773

RWY 17-35 11020 X 147  
RWY 12-30 8508 X 147  
RWY 3-21 8373 X 147



## Cortez (VOR)

15907N 9514E  
freq. 108.4

## Cortez - Montezuma Co

15874N 9484E  
alt. 5914

RWY 3-21 7202 X 93



## Denver (VOR)

16713N 10923E  
freq. 117

## Denver, Arapahoe Co

16615N 10919E  
alt. 5871

RWY 16-34 8501 X 98  
RWY 16-34 5145 X 75  
RWY 10-28 4900 X 59



Denver, ~~Jeffco~~

35753N 10856E  
alt. 5655

RWY 11-29 7494 X 98  
RWY 2-20 3598 X 72  
RWY 11-29 3998 X 59



## Denver, Stapleton

16204N 10926E  
alt. 5333

RWY 17-35 11998 X 196  
RWY 17-35 11499 X 147  
RWY 8-26 10003 X 147  
RWY 8-26 7924 X 147  
RWY 7-25 4860 X 72



## Durango - La Plata Co

15752N 9766E  
alt. 6685

RWY 2-20 9197 X 147



## Farmington (NM)

15603N 9571E  
alt. 5504

RWY 7-25 6701 X 98  
RWY 5-23 6500 X 147



## Farmington (VOR)

15603N 9610E  
freq. 115.3

## Gill (VOR)

16987N 11082E  
freq. 112.8

## Dove Creek (VOR)

16105N 9426E  
freq. 114.6

## Durango (VOR)

15753N 9770E  
freq. 138.2

## Grand Junction, Walker

16637N 9671E  
alt. 4858

RWY 11-29 10499 X 147  
RWY 4-22 5362 X 98



## Grand Junction (VOR)

16525N 9577E  
freq. 112.4

## Gunnison (VOR)

16257N 10113E  
freq. 114.9

## Hanksville (VOR)

16487N 8892E  
freq. 115.9

## Hanksville

16487N 8890E  
alt. 4444

Rwy B 25 5674 X 72



## Kiowa (VOR)

16527N 11082E  
freq. 117.5

## Kremmling (VOR)

16833N 10427E  
freq. 113.8

## Lake Co

16546N 10411E  
alt. 9929

Rwy 16-34 5297 X 72



## Laporte (NDB)

17050N 10930E  
freq. 387

## Maxwell (NDB)

15371N 10831E  
freq. 284

## Meeker (VOR)

17007N 9949E  
freq. 115.2

## Moab (VOR)

16565N 9232E  
freq. 109.8

## Monte Vista, San Luis Valley

15809N 10375E  
alt. 7610

Rwy 1-19 5933 X 49



## Montrose (VOR)

16336N 9832E  
freq. 108.6

## Montrose Co

16333N 9831E  
alt. 5760

RWY 12-30 8495 X 98



## Pagosa Springs, Stevens

15763N 10015E  
alt. 7701

RWY 4-22 5598 X 59



## Pueblo (VOR)

16045N 10977E  
freq. 116.7

## Pueblo

16050N 10953E  
alt. 4726

RWY 8-26 10495 X 147  
RWY 17-35 8304 X 147  
RWY 8-26 4070 X 72  
RWY 12-30 8265 X 147



## Raton Muni - Crews (NM)

15386N 10850E  
alt. 6350

RWY 2-20 5549 X 72  
RWY 7-25 4998 X 98



## Rifle, Garfield Co

16757N 9970E  
alt. 5553

RWY 8-25 5599 X 98



## Saguache

16055N 10376E  
alt. 7826

RWY 10-28 8039 X 55



## Taos (VOR)

15406N 10357E  
freq. 117.5

## Trinidad (NDB)

15617N 10944E  
freq. 329

10 - 25000

Yr 1982, Las Animas Co

155°2N 109°38E

alt. 5760

RMV 3-21

5493 X 98



# DENVER SECTIONAL

- 1 Canyonlands
- 2 Hanksville
- 3 Blanding
- 4 Grand Junction, Valtier
- 5 Rifle, Garfield Co.
- 6 Aspen - Pitkin Co., Kardy Flt.
- 7 Lake Co.
- 8 Denver, Dettie
- 9 Denver, Stapleton
- 10 Denver, Arapahoe Co.
- 11 Colorado Springs
- 12 Pueblo
- 13 Saguache
- 14 Monte Vista, San Luis Valley
- 15 Alamosa - Bergman
- 16 Trinidad, Las Animas Co.
- 17 Pagosa Springs, Stevens
- 18 Durango - La Plata Co.
- 19 Cortez - Montezuma Co.
- 20 Montrose Co.
- 21 Aztec (NM)
- 22 Farmington (NM)
- 23 Raton Hunt - Crews (NM)

108.0  
Carbon



102.4  
Grand Junction



109  
Trinidad  
10

104  
Maxwell

107  
Leports



## LEGEND

frequency MDS

108.0  
Carbon

frequency VOR Needle points to magnetic north

103.7  
Victoria

name

24

Airport Layout Diagram (runway lengths are 3 times scale length)

Roads

Streams

Lake, Reservoir, Pond

Light, Beacon, Tower

Light, Beacon, Tower

Light, Beacon, Tower

Light, Beacon, Tower

Light, Beacon, Tower

Light, Beacon, Tower

Light, Beacon, Tower

Light, Beacon, Tower

50 Nautical Miles

## Antelope (NDB)

17731N 9745E  
freq. 290

## Battle Mountain (VOR)

18047N 7135E  
freq. 112.2

## Bear Lake (NDB)

18196N 9086E  
freq. 233

## Big Piney (VOR)

18234N 9503E  
freq. 116.5

## Big Piney

18233N 9507E  
alt. 6973

Rwy 12-30 4495 x 72



## Boise (VOR)

19203N 7765E  
freq. 113.3

## Boise Air Terminal

19201N 7774E  
alt. 2957

RWY 10-28      9761 X 186  
RWY 10-28      7399 X 147



## Burley

19540N 8373E  
alt. 4149

RWY 2-20      4090 X 78  
RWY 6-24      4063 X 147



## Bonnevillie (VOR)

17784N 8145E  
freq. 112.3

## Cache (NDB)

18070N 8869E  
freq. 251

## Brigham City (NDB)

17953N 8760E  
freq. 294

## Carbon (VOR)

16996N 8986E  
freq. 109

## Brigham City

17964N 8779E  
alt. 4225

RWY 16-34      5457 X 72



## Driggs, Teton Peaks - Driggs

18796N 9331E  
alt. 6232

RWY 3-21      5198 X 72



## Burley (VOR)

18565N 8352E  
freq. 114.1

## Dubois (VOR)

16038N 9039E  
freq. 116.9



## Duchesne

12251N 9155E  
alt. 5825

RWY 16-34 5799 X 59



## Fort Bridger

12757N 9281E  
alt. 7016

RWY 4-22 5077 X 59



## Dunair (VOR)

10773N 9573E  
freq. 113.4

## Grand Junction (VOR)

16625N 9577E  
freq. 112.4

## Elko (VOR)

18000N 7523E  
freq. 114.5

## Hailey, Friedman Mem.

18965N 8341E  
alt. 5314

## Elko - Harris

18031N 7525E  
alt. 5136

RWY 5-23 6399 X 147



RWY 13-31 6599 X 98



## Fairfield (VOR)

17425N 8666E  
freq. 116.6

## Hanksville (VOR)

16487N 8892E  
freq. 115.9

## Fort Bridger (VOR)

17753N 9272E  
freq. 108.6

## Idaho Falls (VOR)

18787N 9012E  
freq. 109

## Idaho Falls, Fanning

18787N 9011E  
alt. 4740

RWY 2-20 5000 X 147  
RWY 16-34 5156 X 147



## Jackpot

18387N 8026E  
alt. 5213

RWY 15-33 5198 X 59



## Jackson (VOR)

18714N 9426E  
freq. 108.4

## Jackson Hole

19713N 9425E  
alt. 4503

RWY 0-18 6297 X 147



## Kemmerer

17949N 9281E  
alt. 7282

RWY 16-34 7015 X 59



## Lander Co

18052N 7153E  
alt. 4533

RWY 3-21 7297 X 147  
RWY 12-30 7297 X 147  
RWY 6-24 4696 X 49



## Logan (VOR)

18071N 8875E  
freq. 109.8

## Logan - Cache

18048N 8869E  
alt. 4454

RWY 17-35 5936 X 147  
RWY 10-28 5011 X 98  
RWY 5-23 5005 X 147



## Lucin (VOR)

18055N 8201E  
freq. 113.6

## Malad City (VOR)

18272N 8736E  
freq. 117.4

## Malad City

18242N 8779E  
alt. 4503

Rwy 16 34 4349 X 59



## Mud Lake - West Jefferson Co

18962N 8927E  
alt. 4786

Rwy 2 20 3299 X 49



## Myton (VOR)

17213N 9229E  
freq. 117.9

## Ogden (VOR)

17835N 8728E  
freq. 115.7

## Ogden Muni.

17814N 8751E  
alt. 4454

Rwy 3-21 7297 X 147  
Rwy 7-25 5598 X 147  
Rwy 16 34 5349 X 196



## Owyhee

18533N 7558E  
alt. 5373

Rwy 0-18 6697 X 124



## Meeker (VOR)

17007N 9949E  
freq. 115.2

## Moab (VOR)

16565N 9232E  
freq. 109.8

## Montrose (VOR)

16335N 9832E  
freq. 103.6

## Mountain Home (VOR)

18917N 7828E  
freq. 114.9

## Paris, Bear Lake Co

18194N 9085E  
alt. 5927RWY 10-28 5726 X 147  
RWY 16-34 5648 X 147

## Provo

13325N 8732E  
alt. 4490RWY 13-31 7054 X 147  
RWY 8-18 6933 X 147  
RWY 6-24 5592 X 147

## Pinedale, Ralph Menz

18296N 9519E  
alt. 7085

RWY 13-31 6202 X 98



## Rexburg - Madison Co

18396N 9128E  
alt. 4858

RWY 17-35 4204 X 72



## Pocatello (VOR)

18572N 8758E  
freq. 112.6

## Pocatello

18588N 8779E  
alt. 4449RWY 3-21 9052 X 147  
RWY 16-34 8347 X 298  
RWY 7-25 8245 X 298

## Rigby

18826N 9371E  
alt. 4845

RWY 1-19 3199 X 49



## Riverton (VOR)

18313N 10090E  
freq. 128.8

## Rock Springs (VOR)

17723N 9739E  
freq. 114.7

## Provo (VOR)

17381N 8728E  
freq. 108.4

## Rock Springs - Sweetwater Co

17733N 9722E  
alt. 6760

Rwy 9 27 9997 X 147  
Rwy 3-21 5221 X 72



## Roosevelt

17259N 9269E  
alt. 5173

Rwy 7 25 6497 X 59



## Salt Lake City (VOR)

17668N 8721E  
freq. 116.8

## Salt Lake City Int'l

17648N 8719E  
alt. 4228

Rwy 16-34 12001 X 147  
Rwy 16-34 9593 X 147  
Rwy 14-32 5293 X 147



## Salt Lake City No.2

17575N 8690E  
alt. 4608

Rwy 16 34 5597 X 98



## Sturgeon (NDB)

18961N 7878E  
freq. 333

## Sweden (NDB)

18761N 8975E  
freq. 350

## Tremonton

18047N 8760E  
alt. 4333

Rwy 17-35 3443 X 72



## Twin Falls - Sun Valley - Joslin Fld

18582N 8150E  
alt. 4152

Rwy 7-25 8701 X 147  
Rwy 12-30 3207 X 98



## Twin Falls (VOR)

18582N 8147E  
freq. 115.8

## Ustie (NDB)

19222N 7749E  
freq. 359

## Vegna (VOR)

17258N 9458E  
freq. 108.2

## Werna

12287N 9458E  
alt. 5274

Rwy 16-34 6599 X 147  
Rwy 7-35 4106 X 59



## Wells (VOR)

18076N 7819E  
freq. 114.2

## Wells, Harriet Fld

18061N 7833E  
alt. 5773

Rwy 8-26 5497 X 147



## Wendover

17807N 8058E  
alt. 4241

Rwy 3-21 5099 X 147  
Rwy 12-30 8098 X 147

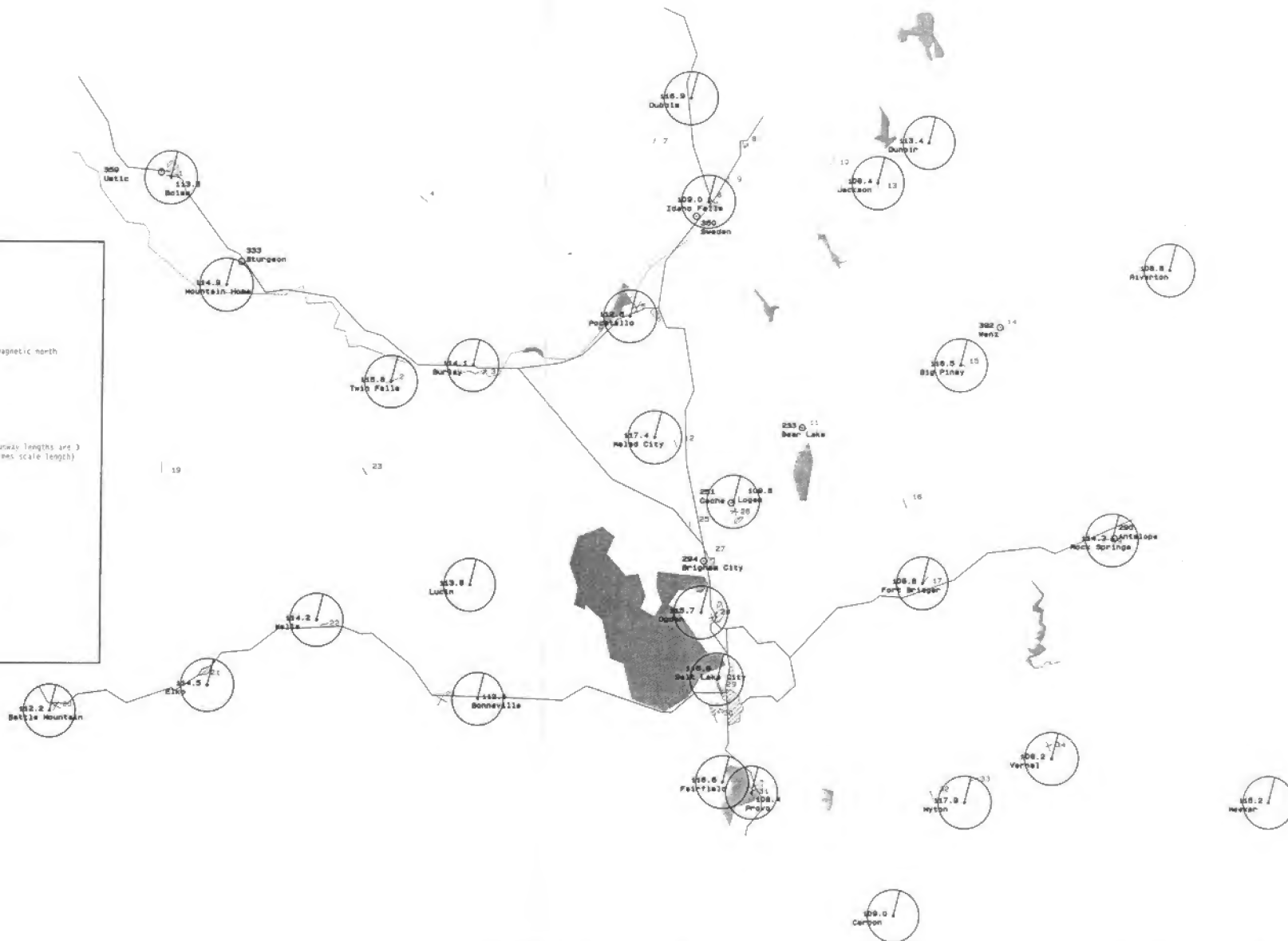
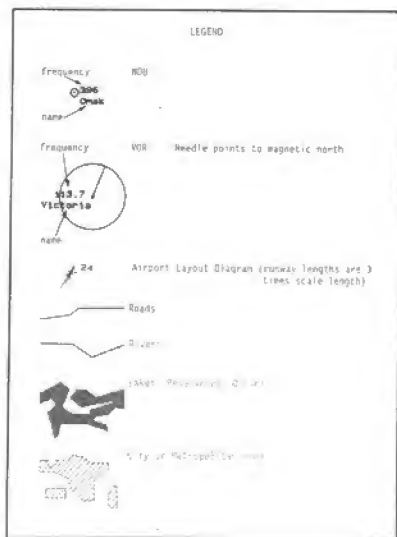


## Wenz (NDB)

18296N 9518E  
freq. 392

# SALT LAKE CITY SECTIONAL

- 1 Boise Air Terminal
- 2 Twin Falls - Sun Valley - Jostlin Fld
- 3 Burley
- 4 Hailey, Friedman Mem.
- 5 Pocatello
- 6 Idaho Falls, Fanning
- 7 Mud Lake - West Jefferson Co
- 8 Rexburg - Madison Co
- 9 Rigby
- 10 Driggs, Teton Peaks - Driggs
- 11 Paris, Bear Lake Co
- 12 Malad City
- 13 Jackson Hole
- 14 Pinedale, Ralph Wenz
- 15 Big Piney
- 16 Kemmerer
- 17 Fort Bridger
- 18 Rock Springs - Sweetwater Co
- 19 Dwyer
- 20 Lander Co
- 21 Elko - Harris
- 22 Wells, Harriet Fld
- 23 Jackpot
- 24 Wendover
- 25 Tremonton
- 26 Logan - Cache
- 27 Brigham City
- 28 Ogden Muni.
- 29 Salt Lake City Int'l
- 30 Salt Lake City No. 2
- 31 Provo
- 32 Oquirrhine
- 33 Roosevelt
- 34 Vernal



## Avs. Martin Mem.

15038N 14862E  
alt. 1302

RWY 13-31 3598 X 49



## Bartlesville (VOR)

15055N 13699E  
freq. 117.9

## Beatrice (VOR)

16541N 13597E  
freq. 110.6

## Bilmar (NDB)

15034N 14859E  
freq. 341

## Brookfield (NDB)

16249N 14780E  
freq. 383

## Brookfield Mem.

16249N 14782E  
alt. 807

RWY 17-35 2997 X 49





## Buckhorn (NDB)

15336N 15073E  
freq. 391

## Butler (VOR)

15634N 14273E  
freq. 115.9

## Chanute (VOR)

15383N 13874E  
freq. 109.2

## Chillicothe (NDB)

16267N 14649E  
freq. 375

## Chillicothe

16266N 14651E  
alt. 781

RWY 14-32 3899 X 72



## Coffeyville (NDB)

15155N 13862E  
freq. 212

## Coffeyville

15155N 13868E  
alt. 725

RWY 17-35 5871 X 147



## Columbia Reg.

15824N 15059E  
alt. 889

RWY 2-20 6497 X 147  
RWY 13-31 2466 X 72



## Concordia (NDB)

16281N 13266E  
freq. 335

## Cuba Muni.

15492N 15316E  
alt. 1023

RWY 0-18 2899 X 49



## Dagwood (VOR)

15059N 14792E  
freq. 109.4

## 4 KANSAS CITY

## El Dorado (NOB)

15486N 13461E  
freq. 383

## El Dorado Muni.

15490N 13466E  
alt. 1378

Rwy 4-22 4199 X 72



## Emporia (VOR)

15685N 13713E  
freq. 112.8

## Emporia

15704N 13698E  
alt. 1207

Rwy 0-18 4949 X 98



## Empville (NOB)

16642N 14214E  
freq. 317

## Flippin (VOR)

14739N 14921E  
freq. 115.1

## Foristell (VOR)

15753N 15476E  
freq. 110.8

## Forney (VOR)

15357N 15063E  
freq. 110

## Fort Leavenworth

16121N 14164E  
alt. 1597

Rwy 15-33 5903 X 99



## Fort Leonard Wood

15361N 15061E  
alt. 1158

Rwy 14-32 6035 X 147



## Fort Scott (NOB)

15434N 14162E  
freq. 379

## Fort Scott

15438N 14166E  
alt. 915

RWY 17-35 4496 X 72



## Hallsville (VOR)

15951N 15093E  
freq. 114.2

## Hannibal (NDB)

16206N 15333E  
freq. 411

## Hannibal

16209N 15335E  
alt. 771

RWY 17-35 3899 X 72



## Harrison (VOR)

14762N 14658E  
freq. 112.5

## Independence (NDB)

15188N 13794E  
freq. 400

## Independence

15193N 13799E  
alt. 820

RWY 4-22	5497 X 147
RWY 13-31	5497 X 147
RWY 17-35	5497 X 147



## Jefferson City (VOR)

15727N 15071E  
freq. 110.2

## Jefferson City Mem.

15728N 15076E  
alt. 548

RWY 12-30	4998 X 99
RWY 8-26	3398 X 72



## Johnson Co. (VOR)

15835N 14207E  
freq. 113

## Johnson Co. Exec.

15890N 14207E  
alt. 1092

RWY 17-35 4096 X 72



## Johnson Co. Industrial

15885N 14156E  
alt. 1092

RWY 17-35 7337 X 196  
RWY 4-22 5218 X 147  
RWY 13-31 2797 X 98



## Joplin

15156N 14238E  
alt. 981

RWY 13-31 6500 X 147  
RWY 4-22 3601 X 72  
RWY 0-18 4244 X 98



## Kansas City (VOR)

16071N 14269E  
freq. 112.6

## Kansas City Downtown

16002N 14266E  
alt. 751

RWY 0-18 6999 X 147  
RWY 3-21 5051 X 147



## Kansas City Int'l

16088N 14227E  
alt. 1027

RWY 1-19 10797 X 147  
RWY 9-27 9498 X 147



## Kansas City, Fairfax

16016N 14260E  
alt. 751

RWY 17-35 7297 X 147  
RWY 13-31 5999 X 147



## Kansas City, Richards - Gebaur

15885N 14268E  
alt. 1092

RWY 0-18 8924 X 147



## Kirksville (VOR)

16400N 14959E  
freq. 114.6

## Lawrence (NDB)

15972N 14051E  
freq. 284

## Lawrence

15975N 14053E  
alt. 833

RWY 14-32 4938 X 98  
RWY 1-19 3899 X 72



## Manhattan

16074N 13565E  
alt. 1056

RWY 3-21 6999 X 147  
RWY 13-31 3798 X 58



## Lebanon (NDB)

15326N 14883E  
freq. 414

## Lebanon, Jones Lebanon

15331N 14886E  
alt. 1319

RWY 0-18 4998 X 72  
RWY 9-27 2374 X 49



## Maples (VOR)

15285N 15190E  
freq. 113.4

## Marshall (NDB)

15962N 14731E  
freq. 329

## Marshall Mem.

15963N 14733E  
alt. 777

RWY 17-35 3899 X 72



## Macon (VOR)

16190N 14985E  
freq. 112.3

## Manhattan (VOR)

16075N 13567E  
freq. 110.2

## Marysville

16376N 13608E  
alt. 1262

RWY 15-33 3007 X 49



## McDowell Creek (NDB)

16057N 13579E  
freq. 391

## McPherson (NDB)

15769N 13194E  
freq. 227

## Moberly (NDB)

16106N 15002E  
freq. 302

## Moberly, Omar N. Bradley

16107N 15004E  
alt. 855

Rwy 13-31 4677 X 98  
Rwy 5-23 3729 X 81



## Mountain View (NDB)

15025N 15192E  
freq. 365

## Mountain View

15029N 15194E  
alt. 1168

Rwy 1-19 4656 X 59



## Napoleon (VOR)

15981N 14419E  
freq. 114

## Neosho (VOR)

15015N 14247E  
freq. 116.6

## Neosho Mem.

15005N 14267E  
alt. 1253

Rwy 1-19 4998 X 98



## Nevada (NDB)

15447N 14325E  
freq. 209

## Nevada

15452N 14328E  
alt. 882

Rwy 2-20 5897 X 72  
Rwy 13-31 2578 X 39



## Newton (NDB)

15625N 13321E  
freq. 281

## Oswego (VOR)

15170N 13992E  
freq. 117.6

## Ottawa (NDB)

15769N 14022E  
freq. 251

## Ottawa

15770N 14025E  
alt. 954

RWY 17-35 3398 X 49



## Parsons (NDB)

15254N 13893E  
freq. 293

## Parsons, Tri City

15259N 13897E  
alt. 899

RWY 17-35 5684 X 98  
RWY 4-22 4004 X 98  
RWY 13-31 4004 X 98



## Pawnee City (VOR)

16586N 13779E  
freq. 112.4

## Pioneer (VOR)

15054N 13301E  
freq. 113.2

## Pittsburg (NDB)

15283N 14165E  
freq. 365

## Pittsburg, Atkinson

15288N 14169E  
alt. 948

RWY 3-21 3988 X 72  
RWY 16-34 5375 X 98  
RWY 10-28 2997 X 95



## Quincy (VOR)

16257N 15391E  
freq. 113.1

## Quincy

16302N 15425E  
alt. 768

RWY 4-22 7094 X 147  
RWY 0-18 5395 X 147  
RWY 13-31 5395 X 147



## Razorback (VOR)

14751N 14339E  
freq. 116.4

## Rolla National

15522N 15200E  
alt. 1148

RWY 4-22 5497 X 147  
RWY 13-31 5497 X 147



## Salina (VOR)

15995N 13241E  
freq. 115.3

## Sedalia (HDB)

15795N 14729E  
freq. 291

## Sedalia Mem.

15797N 14730E  
alt. 909

RWY 0-16 4993 X 98  
RWY 5-23 3598 X 49



## Springfield (VOR)

15212N 14642E  
freq. 116.9

## Springfield Reg.

15169N 14524E  
alt. 1266

RWY 1-19 7002 X 147  
RWY 13-31 5598 X 147



## St. Joseph (VOR)

16374N 14179E  
freq. 108.2

## St. Joseph, Rosecrans Mem.

16295N 14178E  
alt. 827

RWY 17-35 8058 X 147  
RWY 13-31 5999 X 98  
RWY 4-22 5097 X 98



## Tiger (VOR)

15893N 15010E  
freq. 111.2

## Topeka (VOR)

16034N 13942E  
freq. 117.8



## Topeka, Billard

16006N 13915E  
alt. 879

Rwy 13-31 5097 X 147  
Rwy 17-35 5097 X 147  
Rwy 4-22 3073 X 98



## Whiteman (VOR)

15750N 14590E  
freq. 109

## Wichita (VOR)

15501N 13202E  
freq. 113.8

## Topeka, Forbes

15957N 13859E  
alt. 1079

Rwy 13-31 12818 X 196  
Rwy 3-21 7999 X 196



## Vichy (VOR)

15529N 15218E  
freq. 117.7

## West Plains (NDB)

14922N 15138E  
freq. 335

## West Plains

14925N 15141E  
alt. 997

Rwy 14-32 3207 X 72



- 1 Marysville
- 2 Manhattan
- 3 Ingoria
- 4 Topeka, Forbes
- 5 Topeka, Billard
- 6 St. Joseph, Rosecrans Mem.
- 7 Fort Leavenworth
- 8 Kansas City Int'l
- 9 Kansas City, Fairfax
- 10 Kansas City, Wood
- 11 Johnson Co., Leak
- 12 Johnson Co., Industrial
- 13 Kansas City, Richards Gebaur
- 14 Secalia Mem.
- 15 Marshall Mem.
- 16 Chillicothe
- 17 Brookfield Mem.
- 18 Hoberly, Omar N. Bradley
- 19 Kansas City
- 20 Jefferson City Mem.
- 21 Holla National
- 22 Cuba Mem.
- 23 Quincy
- 24 Hannibal
- 25 Fort Leonard Wood
- 26 Ottawa
- 27 Lawrence
- 28 Grass Plains
- 29 Mountain View
- 30 Ava, Martin Mem.
- 31 Lebanon, Jones Lebanon
- 32 Springfield Reg.
- 33 Nevada
- 34 Joplin
- 35 Neosho Mem.
- 36 Pittsburg, Atkinson
- 37 Scott
- 38 Parsons, R. City
- 39 Independence
- 40 Effingham
- 41 El Dorado Muni.

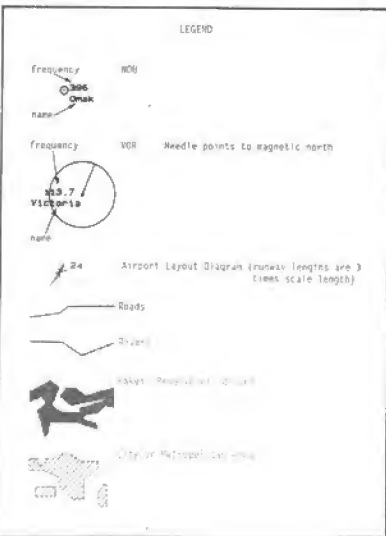


图 1 所示为 [1, 2] 的流程图。

## Ainsworth (VOR)

17697N 12617E  
freq. 112.7

## Ainsworth

17695N 12619E  
alt. 2568

Rwy 17-35 6793 x 147  
Rwy 12-30 5497 x 89



## Albert Lea (VOR)

18074N 14727E  
freq. 109.8

## Albert Lea

18074N 14729E  
alt. 1256

Rwy 16-34 4496 x 98  
Rwy 4-22 2899 x 72



## Amoní (VOR)

16736N 14521E  
freq. 115.7

## Atlantic (NDB)

17096N 14177E  
freq. 365

## Atlantic

17098N 14175E  
alt. 1164

RWY 12-30 3197 X 72



## Broken Bow

17187N 12595L  
alt. 2539

RWY 14-32 3745 X 49



## Atwood (NDB)

16555N 12157E  
freq. 365

## Austin (VOR)

19068N 14955E  
freq. 108.8

## Beatrice (VOR)

16641N 13597E  
freq. 110.6

## Beatrice

16638N 13598E  
alt. 1319

RWY 17-35 5598 X 98  
RWY 13-31 4398 X 98



## Broken Bow (NDB)

17188N 12685E  
freq. 290

## Brookings (VOR)

18374N 13554E  
freq. 108.8

## Brookings

18374N 13555E  
alt. 1637

RWY 12-30 5428 X 98



## Burwell (NDB)

17323N 12855E  
freq. 352

## Burwell, Cran

17322N 12856E  
alt. 2181

RWY 15-33 3197 X 49



## Carroll (NOB)

17369N 14265E  
freq. 397

## Colby (NOB)

16375N 12129E  
freq. 400

## Columbus (VOR)

17143N 13430E  
freq. 112.2

## Columbus

17144N 13434E  
alt. 1443

RWY 14-32 5001 X 98



## Custer County (VOR)

17210N 12670E  
freq. 108.2

## Des Moines (VOR)

17100N 14631E  
freq. 114.1

## Des Moines

17150N 14625E  
alt. 958

RWY 12-30 9000 X 147  
RWY 5-23 6500 X 147  
RWY 12-30 3201 X 98



## Emville (NOB)

16542N 14214E  
freq. 317

## Fairmont (VOR)

18064N 14398E  
freq. 110.2

## Fairmont

18065N 14400E  
alt. 1161

RWY 13-31 5500 X 98  
RWY 2-20 3299 X 72



## Forest City (NOB)

17881N 14548E  
freq. 359

## Forest City

17884N 14646E  
alt. 1230

RWY 15-33 5799 X 98  
RWY 9-27 2599 X 59



## Fort Dodge (VOR)

17614N 14431E  
freq. 113.5

## Fort Dodge

17590N 14452E  
alt. 1158

RWY 6-24 5545 X 147  
RWY 12-30 4398 X 98



## Fremont (NOB)

17129N 13696E  
freq. 287

## Fremont

17128N 13697E  
alt. 1204

RWY 13-31 3798 X 98  
RWY 0-18 2351 X 49



## Gorin, Wiley

18042N 12693E  
alt. 2034

RWY 13-31 3899 X 72



## Grand Island (VOR)

16962N 13103E  
freq. 112

## Grand Island, Hall Co. Reg.

16954N 13103E  
alt. 1847

RWY 4-22 7186 X 147  
RWY 17-35 6999 X 147  
RWY 13-31 6605 X 147



## Greenfield (NOB)

17058N 14371E  
freq. 338

## Greenfield

17059N 14371E  
alt. 1364

RWY 13-31 2499 X 49



## Gurney

17782N 13455E  
alt. 1305

RWY 13-31 6097 X 98  
RWY 1-19 3499 X 72



## Halfway (VOR)

18300N 14730E  
freq. 111.2

## Hastings (VOR)

15802N 13050E  
freq. 108.8

## Hastings

16801N 13050E  
alt. 1955

RWY 14-32 5598 X 93  
RWY 4-22 4496 X 72



## Huron Reg.

18433N 13227E  
alt. 1289

RWY 12-30 7199 X 147  
RWY 17-35 2997 X 72



## Kearney (VOR)

16857N 12857E  
freq. 111.2

## Kearney

16870N 12866E  
alt. 2129

RWY 0-18 7091 X 147  
RWY 13-31 5185 X 147



## Kirksville (VOR)

16400N 14959E  
freq. 114.5

## Lee Bird (NDB)

17082N 12335E  
freq. 375

## Lincoln (VOR)

16906N 13616E  
freq. 116.1

## Lincoln

16876N 13608E  
alt. 1214

RWY 17-35 12900 X 196  
RWY 14-32 8619 X 147  
RWY 17-35 5497 X 98



## Mankato (Kansas) (VOR)

16417N 13075E  
freq. 109.8

## Mankato (VOR)

18307N 14563E  
freq. 110.8

## Mankato

18309N 14560E  
alt. 1020

RWY 15-33 5398 X 98  
RWY 4-22 3998 X 72



## Marshall (VOR)

18425N 13971E  
freq. 111

## Marshall

18427N 13973E  
alt. 1178

RWY 12-30 5061 X 98  
RWY 2-20 3204 X 72



## Maryville

16643N 14211E  
alt. 1151

RWY 14-32 5499 X 59  
RWY 0-18 1997 X 49



## Mason City (VOR)

17820N 14740E  
freq. 114.9

## Mason City

17849N 14738E  
alt. 1214

RWY 17-35 6500 X 147  
RWY 12-30 5500 X 147



## McCook (VOR)

16689N 12327E  
freq. 110

## Mitchell (VOR)

18167N 13269E  
freq. 109.2



## Mitchell

18165N 13270E  
alt. 1302

RWY 12-30 6701 X 147  
RWY 17-35 5503 X 147



## North Platte, Lee Bird Fld

17085N 12332E  
alt. 2778

RWY 12-30 7999 X 147  
RWY 12-30 6599 X 98  
RWY 8-26 4599 X 98  
RWY 17-35 4434 X 98



## Neola (VOR)

17130N 13990E  
freq. 117.1

## O'Neill (VOR)

17619N 13028E  
freq. 113.9

## Newton (VOR)

17249N 14807E  
freq. 112.5

## O'Neill

17619N 13028E  
alt. 2030

## Norfolk (VOR)

17378N 13413E  
freq. 109.6

RWY 13-31 4198 X 72



## Norfolk, Stefan Mem.

17376N 13413E  
alt. 1571

RWY 1-19 5799 X 147  
RWY 13-31 5799 X 147



## Oberlin (NDB)

16530N 12319E  
freq. 341

## Omaha (VOR)

16999N 13950E  
freq. 116.3

## North Platte (VOR)

17054N 12310E  
freq. 117.4

## Omaha, Eppley Airfield

17060N 13902E  
alt. 984

RWY 14-32      8498 X 147  
RWY 17-35      6002 X 147  
RWY 14-32      4296 X 72



## Ord (NDB)

17249N 12913E  
freq. 356

## Pawnee City (VOR)

16586N 13779E  
freq. 112.4

## Phillipsburg (NDB)

16416N 12730E  
freq. 368

## Pierre (VOR)

18483N 12630E  
freq. 112.5

## Pierre

18481N 12594E  
alt. 1742

RWY 13-31      6887 X 147  
RWY 7-25      6884 X 147



## Platte Center (NDB)

17165N 13420E  
freq. 407

## Plattsmouth (NDB)

16910N 13885E  
freq. 329

## Plattsmouth

16910N 13885E  
alt. 1200

RWY 16-34      2997 X 49



## Sac City (NDB)

17520N 14213E  
freq. 356

## Sac City

17522N 14212E  
alt. 1250

RWY 0-18      3499 X 59  
RWY 14-32      2660 X 42



## Salix (NDB)

17512N 13789E  
freq. 414

## Sioux City (VOR)

17519N 13778E  
freq. 116.5

## Sioux City

17549N 13759E  
alt. 1099

RWY 13-31 8997 X 347  
RWY 4-22 6655 X 147  
RWY 17-35 6655 X 147



## Sioux Falls (VOR)

18069N 13660E  
freq. 115

## Sioux Falls, Fess

18061N 13669E  
alt. 1430

RWY 3-21 8997 X 147  
RWY 15-33 6655 X 147  
RWY 9-27 3149 X 72



## Spencer (VOR)

17862N 14150E  
freq. 110

## Spencer

17863N 14145E  
alt. 1338

RWY 12-30 4998 X 98



## St. Joseph (VOR)

16374N 14179E  
freq. 108.2

## Storm Lake (NDB)

17615N 14128E  
freq. 227

## Storm Lake

17617N 14127E  
alt. 1489

RWY 17-35 4198 X 72  
RWY 13-31 3033 X 49



## Tekamah (VOR)

17257N 13815E  
freq. 108.4

## Tekamah

17260N 13816E  
alt. 1027

Rwy 14-32 2899 X 49



## Thedford (VOR)

17455N 12358E  
freq. 108.6

## Thedford, Thomas Co

17446N 12418E  
alt. 2821

Rwy B-26 2797 X 49



## Valentine (NDB)

17834N 12448E  
freq. 314

## Valentine, Miller

17834N 12448E  
alt. 2588

Rwy 13-31 4998 X 98  
Rwy 2-20 2797 X 49



## Wagner (NDB)

17864N 13157E  
freq. 332

## Wagner

17862N 13158E  
alt. 1476

Rwy B-26 2997 X 49



## Wahoo (NDB)

17042N 13672E  
freq. 400

## Wahoo

17041N 13672E  
alt. 1223

Rwy 2-20 3499 X 49



## Winner (VOR)

18082N 12721E  
freq. 112.9

## Wolbach (VOR)

17131N 13100E  
freq. 114.9

## Worthington (VOR)

18073N 14037E

freq. 110.6

## Worthington

18077N 14038E

alt. 1574

RWY 11-29

5503 X 147

RWY 17-35

4198 X 98



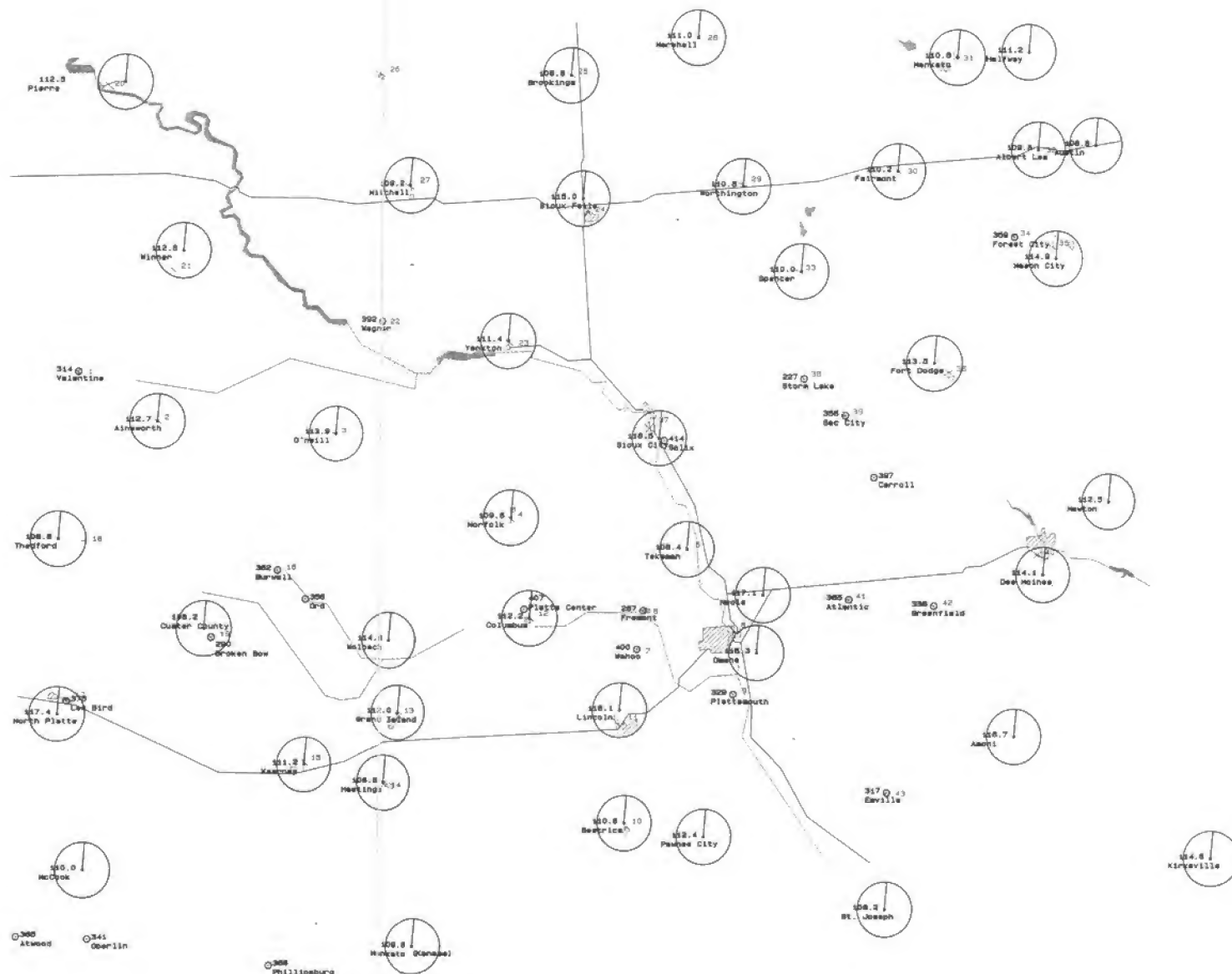
## Yankton (VOR)

17764N 13452E

freq. 111.4

Scenario disk

- 2 Valentine, Miller
- 2 Ainsworth
- 3 O'Neill
- 3 McCall, Stefan Mem.
- 5 Fekahan
- 6 Fremont
- 6 Waboo
- 8 Omaha, Epoley Airfield
- 9 Plattsmouth
- 10 Beatrice
- 11 Lincoln
- 12 Columbus
- 13 Grand Island, Nat'l Co. Reg.
- 17 North Platte, Lee Bird Fl'd
- 18 Thadford, Thomas Co.
- 19 Broken Bow
- 20 Pierre
- 21 Gering, Willey
- 22 Wagner
- 23 Gurney
- 24 Sioux Falls, Foss
- 25 Brookings
- 26 Huron Reg.
- 27 Mitchell
- 28 Marshall
- 29 Worthington
- 30 Fairmont
- 31 Mankato
- 32 Albert Lea
- 33 Spencer
- 34 Forest City
- 35 Mason City
- 36 Fort Dodge
- 37 Sioux City
- 38 Storm Lake
- 39 Sack
- 40 Des Moines
- 41 Atlantic
- 42 Greenfield
- 43 Marvill



## Akron (VOR)

16800N 11472E  
freq. 114.4

## Anthony (VOR)

15270N 12972E  
freq. 112.9

## Atwood (NDB)

15555N 12157E  
freq. 365

## Atwood - Rawlins Co

16555N 12156E  
alt. 2978

RAY 15-34 3099 X 49



## Bear Creek (NDB)

15633N 11782E  
freq. 341

## Beatrice (VOR)

16541N 13597E  
freq. 110.6

## Colby (NDB)

16375N 12128E  
freq. 400

## Colby, Shalz Fld

16376N 12127E  
alt. 3182

RWY 17-35 4496 X 72



## Concordia (NDB)

16281N 13266E  
freq. 335

## Concordia, Blosser Muni

16283N 13266E  
alt. 1493

RWY 17-35 2997 X 49



## Dodge City (VOR)

15647N 12382E  
freq. 108.2

## Dodge City

15610N 12390E  
alt. 2594

RWY 14-32 5995 X 98  
RWY 2-20 4647 X 98



## El Dorado (NDB)

15486N 13461E  
freq. 383

## Elkhart (NDB)

15375N 11692E  
freq. 377

## Elkhart Morton Fld

15375N 12659E  
alt. 2839

RWY 17-35 3507 X 59



## Enid - Woodring

14923N 13065E  
alt. 1169

RWY 17-35 6386 X 147  
RWY 2-20 5041 X 72  
RWY 12-30 5510 X 108



## Fairview (NDB)

14911N 12828E  
freq. 246



## Fairview

14912N 12829E  
alt. 1273

RWY 17-35 3598 X 59



## Flagler Avi. Service

16419N 11444E  
alt. 4946

RWY 17-35 3899 X 98



## Follett (NDB)

15048N 12260E  
freq. 407

## Follett - Lipscomb

15049N 12261E  
alt. 2601

RWY 17-35 4057 X 49



## Gage (VOR)

14994N 12338E  
freq. 115.6

## Gage - Shattuck

14970N 12374E  
alt. 2224

RWY 17-35 5434 X 147  
RWY 4-22 2599 X 147



## Garden City (VOR)

15710N 12139E  
freq. 113.3

## Garden City

15717N 12142E  
alt. 2886

RWY 17-35 5395 X 147  
RWY 12-30 4008 X 72



## Goodland (VOR)

16392N 11911E  
freq. 115.1

## Goodland, Renner - Goodland

16384N 11908E  
alt. 3654

RWY 12-30 5497 X 98  
RWY 5-23 3001 X 49



## Great Bend

15816N 12795E  
alt. 1893

Rwy 11-29 8058 X 147  
Rwy 17-35 7996 X 147



## Gruver (NDB)

15025N 11795E  
freq. 359

## Gruver

15028N 11797E  
alt. 3205

Rwy 2-20 4696 X 59



## Guyton (NDB)

15228N 11802E  
freq. 275

## Guyton

15221N 11797E  
alt. 3123

Rwy 0-18 4296 X 98



## Hastings (VOR)

16802N 13050E  
freq. 108.8

## Hays (VOR)

16045N 12686E  
freq. 110.4

## Hays

16047N 12686E  
alt. 1998

Rwy 16-34 5697 X 98



## Hill City (VOR)

16255N 12391E  
freq. 113.7

## Hilyn (NDB)

15821N 12783E  
freq. 308

## Hugo (VOR)

16253N 11227E  
freq. 108.4

## Hugoton (NDB)

15418N 11876E  
freq. 365

## 8 WICHITA

## Hugoton

15421N 11878E  
alt. 3132

RWY 2-20 3499 X 49  
RWY 13-31 2597 X 32



## Johnson City, Stanton Co

15625N 11773E  
alt. 3323

RWY 17-35 5198 X 59  
RWY 8-26 2348 X 59



## Hutchinson (VOR)

15625N 11094E  
freq. 116.8

15920N 11004E  
alt. 4258

RWY 12-18 8272 X 147  
RWY 8-26 6045 X 99



## Hutchinson

15654N 11123E  
alt. 1542

RWY 13-31 6037 X 126  
RWY 3-21 5248 X 147  
RWY 17-35 4250 X 72



## Lamar (VOR)

15935N 11497E  
freq. 115.9

## Lamar

15881N 11487E  
alt. 3703

RWY 0-18 6300 X 98  
RWY 8-26 4998 X 59



## Jetmore

15706N 12431E  
alt. 2467

RWY 17-35 4198 X 72



## Larned (HOB)

15761N 12712E  
freq. 296

## Larned - Pawnee Co

15763N 12711E  
alt. 2011

RWY 17-35 3548 X 59



## Leoti, Mark Moard Mem.

15978N 11967E  
alt. 3303

RWY 17-35 3153 X 42  
RWY 8-25 2459 X 45



## Liberal (VOR)

15348N 12004E  
freq. 112.3

## Liberal

15349N 12009E  
alt. 2886

RWY 17-35 7057 X 147  
RWY 12-30 7097 X 147  
RWY 3-21 6596 X 147



## Lyons (NDB)

15786N 13013E  
freq. 386

## Lyons - Rice Co

15785N 13013E  
alt. 1692

RWY 17-35 2997 X 49



## Manhattan (VOR)

16075N 13567E  
freq. 110.2

## Mankato (Kansas) (VOR)

16417N 13075E  
freq. 109.8

## McCook (VOR)

16583N 12327E  
freq. 110

## McDowell Creek (NDB)

16057N 13579E  
freq. 391

## McPherson (NDB)

15769N 13194E  
freq. 227

## McPherson

15771N 13195E  
alt 1495

RWY 0-18 4198 X 72



## Hwy 100

15418N 12230E  
freq. 129

## Hwy 100

15420N 12226E  
alt. 2524

RWY 17-35 3398 X 49



## Medford (NDB)

15100N 13096E  
freq. 371

## Medford

15101N 13097E  
alt. 1092

RWY 17 35 2997 X 59



## Newton (NDB)

15625N 13321E  
freq. 281

## Newton City Co

15625N 13322E  
alt. 1528

RWY 17-35 5999 X 98



## Oakley (NDB)

15231N 12186E  
freq. 380

## Oakley

15232N 12185E  
alt 3044

RWY 17-35 3793 X 49



## Oberlin (NDB)

15530N 12315E  
freq. 341

## Oberlin

16532N 12319E  
alt. 2690

RWY 17-35 3798 X 49



## Pratt

15532N 12801E  
alt. 1952

RWY 17-35 5497 X 98  
RWY 11-29 3899 X 72



## Phillipsburg (NDB)

16416N 12730E  
freq. 369

## Phillipsburg

16431N 12719E  
alt. 1906

RWY 13-31 3799 X 59



## Salina (VOR)

15955N 13241E  
freq. 115.3

## Salina

15957N 13231E  
alt. 1273

RWY 17-35 13329 X 298  
RWY 12-30 9993 X 147  
RWY 4-22 3627 X 147



## Pioneer (VOR)

15054N 13301E  
freq. 113.2

## Pratt (NDB)

15539N 12804E  
freq. 356

## Scott City

15962N 12123E  
alt. 2962

RWY 17-35 4198 X 42



## Springfield

15513N 11472E  
alt. 4389

Rwy 17-35 4933 X 29



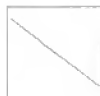
## St Francis (NDB)

15541N 11910E  
freq. 386

## St Francis, Cheyenne Co

16558N 11897E  
alt. 3411

Rwy 13-31 3148 X 49



## Superior

16514N 13153E  
alt. 1589

Rwy 14-32 3699 X 59



## Thorp (NDB)

15305N 11451E  
freq. 212

## Thurman (VOR)

16506N 11427E  
freq. 112.9

## Tobe (VOR)

15581N 11120E  
freq. 115.8

## Tribune

15995N 11833E  
alt. 3521

Rwy 17-35 5123 X 49



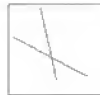
## Ulysses (NDB)

16607N 11902E  
freq. 335

## Ulysses

16510N 11904E  
alt. 3064

Rwy 12-30 5739 X 49  
Rwy 17-35 5198 X 72



## West Woodward (NDB)

15020N 12468E  
freq. 329

# 18 - WICHITA

## Wichita (VOR)

15501N 13202E  
freq. 113.8

## Wichita Mid - Continental

15460N 13250E  
alt. 1332

Rwy 1-19	10299 X 147
Rwy 1-19	7301 X 147
Rwy 14-32	5300 X 147



## Woodring (VOR)

14919N 13065E  
freq. 109

## Woodward, West Woodward

15022N 12469E  
alt. 2188

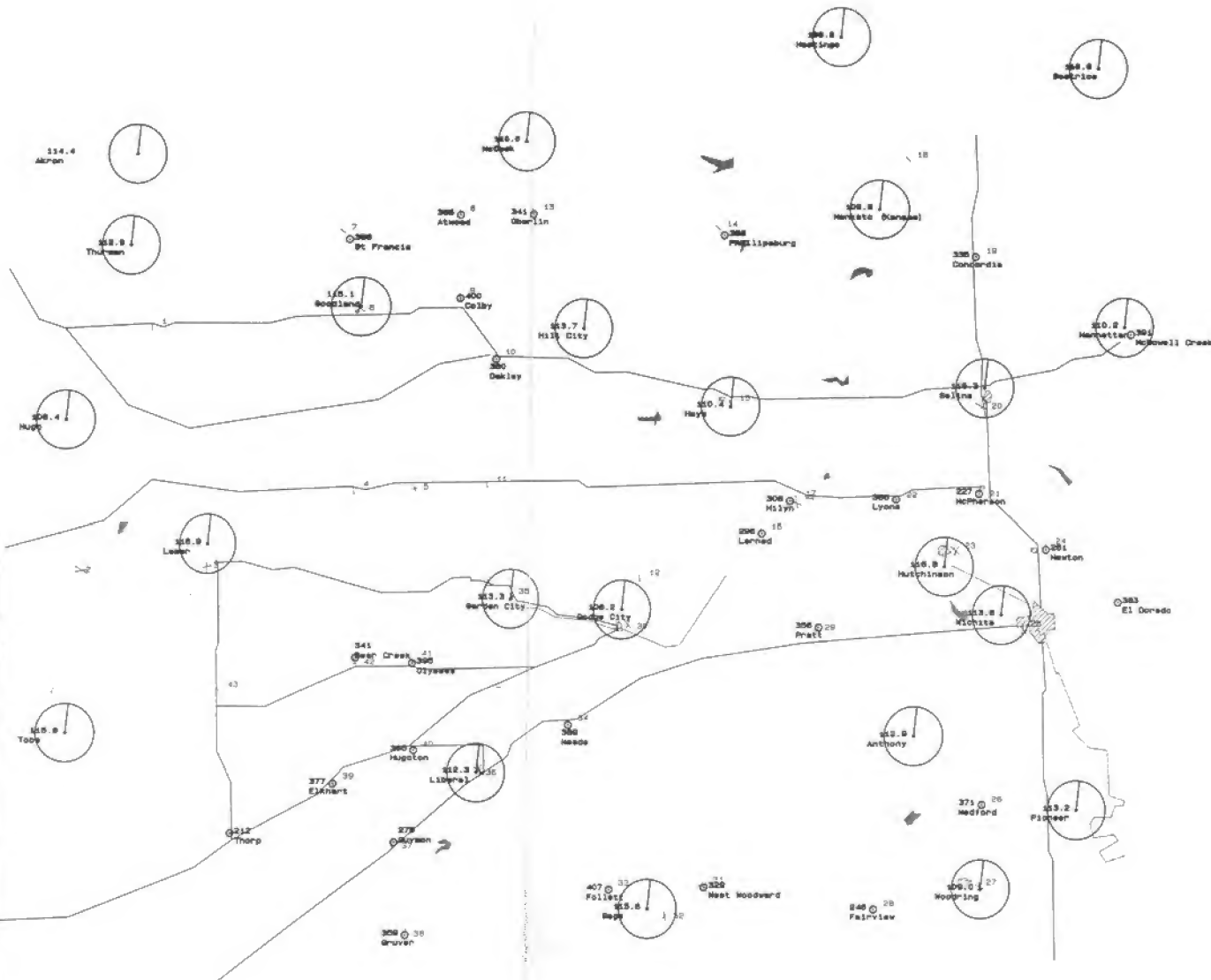
Rwy 5-23	5497 X 147
Rwy 11-29	5497 X 147
Rwy 17-35	5497 X 147





# WICHITA SECTIONAL

- 1 Flagler Airl. Service
- 2 La Junta
- 3 Lamar
- 4 Tribune
- 5 Leoti, Mark Hoard Men.
- 6 Goodland, Kanner - Goodland
- 7 St Francis, Cheyenne Co
- 8 Atwood - Rawlins Co
- 9 Colby, Shultz fld
- 10 Oakley
- 11 Scott City
- 12 Jelmore
- 13 Overlin
- 14 Phillipsburg
- 15 Hays
- 16 Lamed - Pawnee Co
- 17 Great Bend
- 18 Superior
- 19 Concordia, Blosser Mnt
- 20 Salina
- 21 McPherson
- 22 Lyons - Rice Co
- 23 Hutchinson
- 24 Newton City Co
- 25 Wichita Mid - Continental
- 26 Medford
- 27 Enid - Woodring
- 28 Fairview
- 29 Pratt
- 30 Dodge City
- 31 Woodward, West Woodward
- 32 Gage - Shattuck
- 33 Fallett - Lipscomb
- 34 Meade
- 35 Garden City
- 36 Liberal
- 37 Guymon
- 38 Gruber
- 39 Elkhart Norton Co
- 40 Hugoton
- 41 Ulysses
- 42 Johnson City, Stanton Co
- 43 Springfield



## LEGEND

- frequency MDS
- name
- frequency VOR Needle points to magnetic north
- name
- 24 Airport Layout Diagram (runway lengths are 1 times scale length)
- Roads
- Rivers
- Lakes Reservoirs
- 5.0 mi. Metropolitan Area

50 Nautical Miles



Aiken, SC

Aiken Muni

13724N 18819E

alt. 529

RWY 06-24 5000 X 100

RWY 18-36 3000 X 75



Allendale, SC

Allendale Co

13454N 18951E

alt. 160

RWY 17-35 3200 X 75



Augusta, GA Bush Field

13599N 18729E  
alt. 145

RWY 08-26 6001 X 150  
RWY 17-35 8000 X 150



Barnwell, SC Barnwell Co

13564N 18937E  
alt. 246

RWY 04-22 5272 X 100  
RWY 16-34 5118 X 100



Beaufort, SC MCAS Beaufort

13249N 19211E  
alt. 38

RWY 04-22 12200 X 200  
RWY 14-32 8000 X 200



Charleston, SC      Charleston AFB/Int'l

13443N 19417E  
alt: 46

RWY 03-21 7000 X 150  
RWY 15-33 9001 X 200



Charleston, SC      Charleston Executive

13366N 19462E  
alt: 20

RWY 03-21 5000 X 150  
RWY 09-27 5000 X 150



Columbia, SC      Columbia Metro      (F)

13876N 19005E  
alt. 236

Rwy 05-23 5001 X 150  
Rwy 11-29 8600 X 150

ATIS 120.15

Charlotte, NC      Charlotte / Douglas Int'l      (F)

14427N 19030E  
alt. 749

Rwy 05-23 7501 X 150  
Rwy 18L-36R 7845 X 150  
Rwy 18R-36L 10000 X 150

ELS 5  
Frequency: 109.5  
Heading: 52 degrees  
Altitude: 2087 ft. @ LOM

ATIS 121.15



Columbia, SC      Conway - Horry Co

13881N 19735E  
alt. 35

Rwy 04-22 3710 X 60



Edenton, NC      Edenton Muni

14940N 20524E  
alt. 19

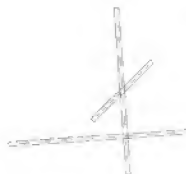
RWY 01-19 5500 X 200  
RWY 05-23 3700 X 100



Fayetteville, NC      Fayetteville Muni / Grannis Fld

14386N 19769E  
alt. 150

RWY 04-22 7204 X 150  
RWY 10-28 4802 X 150



Florence, SC      Florence City-Co

14008N 19501E  
alt. 147

RWY 09-27 6498 X 150  
RWY 18-36 6001 X 150  
RWY 05-23 2992 X 150



Georgetown, SC      Georgetown Co

13653N 19685E  
alt. 39

RWY 05-23 5000 X 100  
RWY 16-34 4930 X 150  
RWY 10-28 4800 X 150



Greensboro, NC Greensboro - High Point - Winston Salem Reg'l

(F) 14829N 19358E  
alt. 925

Rwy 05-23 10000 X 150  
Rwy 14-32 6380 X 150



Kingstree, SC Williamsburg Co

13807N 19474E  
alt. 69

Rwy 14-32 3700 X 75



Kinston, NC

Eastern Regional

14589N 20196E  
alt. 94

Rwy 04-22 6000 X 150  
Rwy 18-36 5000 X 100  
Rwy 09-27 2280 X 150



Lancaster, SC

Lancaster Co

14208N 19059E  
alt. 486

Rwy 06-24 5000 X 100



Lumberton, NC      Lumberton Muni

14214N 19717E  
alt. 126

RWY 05-23 5000 X 150  
RWY 13-31 5000 X 150



Manteo, NC      Dare Co

14923N 20819E  
alt. 13

RWY 04-22 3300 X 150  
RWY 16-34 3200 X 150  
RWY 10-28 3100 X 150



Manning, SC      Clarendon Co

13742N 19353E  
alt. 104

RWY 01-19 3600 X 75



Mocksville, NC      Twin Lakes

14733N 19180E  
alt. 820

RWY 09-27 2950 X 50





N Myrtle Beach, SC Grand Strand (F)

13805N 19876E  
alt. 33

RWY 05-23 5996 X 100

Orangeburg, SC Orangeburg

13666N 15124E  
alt. 197

RWY 04-22 4500 X 100



New Bern, NC Simmons-Nott

14494N 20415E  
alt. 13

RWY 04-22 4804 X 150  
RWY 13-31 4000 X 150

Plymouth, NC Plymouth Muni

14827N 20475E  
alt. 39

RWY 02-20 3700 X 75





Raleigh, NC      Raleigh-Durham (F)

14765N 19769E  
alt. 437

RWY 05R-23L 7500 X 150  
RWY 14-32 4498 X 100



Salisbury, NC      Rowan Co

14613N 19151E  
alt. 771

RWY 02-20 4200 X 100  
RWY 11-29 1900 X 100



Savannah, GA      Savannah Int'l (F)

13078N 19032E  
alt. 51

RWY 09-27 9003 X 150  
RWY 18-35 7001 X 150



Statesboro, GA      Statesboro Muni

13224N 18838E  
alt. 187

RWY 14-32 5000 X 100  
RWY 05-23 4381 X 100



Wallace, NC Henderson

14307N 20094E

alt. 39

RWY 09-27 4000 X 75



Whiteville, NC Columbus Co

14081N 19053E

alt. 90

RWY 05 23 3700 X 75



Walterboro, SC Walterboro Muni

13441N 19222E

alt. 98

RWY 17 35 5700 X 100

RWY 09-27 5500 X 100

RWY 05 23 5150 X 100



Wilmington, NC New Hanover Co

14108N 20146E

alt. 32

RWY 05 23 7999 X 200

RWY 15 34 7002 X 150



Wilson, NC      Wilson Mnt

14742N 805500

alt 150

Rwy 06-23 4505 X 150

Rwy 06-23 4505 X 150

Rwy 16-33 4505 X 150



Winnsboro, SC      Fairfield Co

14019N 19983E

alt 574

Rwy 04-22 3200 X 75

Winston Salem, NC      Smith Reynolds

14839N 19258E

alt 970

Rwy 15-33 6655 X 150

Rwy 03-21 3938 X 150

## Allendale (VOR)

13467N 18967E  
freq. 116.7

## Barretts Mountain (VOR)

14703N 18907E  
freq. 110.8

## Charleston (VOR)

13446N 19427E  
freq. 113.5

## Charlotte (VOR)

14423N 19028E  
freq. 110.6

## Chesterfield (VOR)

14201N 19283E  
freq. 108.2

## Columbia (VOR)

13837N 19030E  
freq. 114.7

## Fayetteville (VOR)

14385N 19771E  
freq. 108.8

## Florence (VOR)

14038N 19518E  
freq. 115.2

## Fort Mill (VOR)

14330N 19033E  
freq. 112.4

## Grand Strand (VOR)

13986N 19359E  
freq. 117.6

## Greensboro (VOR)

14810N 19345E  
freq. 116.2

## Kinston (VOR)

14612N 20214E  
freq. 109.6

## New Bern (VOR)

14484N 20413E  
freq. 113.6

## Raleigh - Durham (VOR)

14766N 19770E  
freq. 117.2

## Sandhills (VOR)

14452N 19509E  
freq. 111.8

## Savannah (VOR)

13103N 19057E  
freq. 112.7

## 24 - CHARLOTTE

## Tar River (VOR)

14849N 20142E  
freq. 117.8

## Vance (VOR)

13688N 19259E  
freq. 110.4

## Wilmington (VOR)

14145N 20151E  
freq. 117

## Wright Brothers (VOR)

14900N 20845E  
freq. 111.6



# AIRPORT DIRECTORY - CHARLOTTE AREA

# CHARLOTTE AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
					(Fuel) (Ray Freq)
Aiken	Aiken Muni	13724	18819	529	
Allendale	Allendale Co.	13454	18991	160	
Augusta	Bush Fld	13599	18729	145	
Barnwell	Barnwell Co.	13564	18937	246	
Beaufort	MCAS Beaufort	13248	19211	38	
Charleston	Charleston AFB Int'l	13448	19417	46	
Charleston	Charleston Executive	13366	19462	20	
Charlotte	Douglas Int'l	14427	19030	749	109.5/5
ATIS 121.5					
Columbia	Columbia Metro	13876	19005	236	
ATIS 120.15					
Columbia	Conway-Horry Co.	13881	19736	35	
Edenton	Edenton Muni	14940	20524	19	
Fayetteville	Fayetteville Muni/Grannis Fld	14386	19769	190	
Florence	Florence City-Co.	14008	19501	147	
Georgetown	Georgetown Co.	13653	19685	39	
Greensboro	Greensboro-Highpoint-Winston Salem Reg'l	14829	19358	926	
Kingstree	Williamsburg Co.	13807	19474	68	
Kinston	Eastern Regional	14589	20196	94	
Lancaster	Lancaster Co.	14208	19069	486	
Lumberton	Lumberton Muni	14214	19717	126	
Manning	Clarendon Co.	13742	19353	104	
Manteo	Dare Co.	14923	20819	13	
Mocksville	Twin Lakes	14733	19180	820	
N. Myrtle Beach	Grand Strand	13885	19876	33	
New Bern	Simmons-Nott	14484	20415	19	
Orangeburg	Orangeburg	13666	19124	197	
Plymouth	Plymouth Muni	14827	20475	39	
Raleigh	Raleigh-Durham	14765	19769	437	
Salisbury	Rowan Co.	14613	19151	771	
Savannah	Savannah Int'l	13076	19032	51	
Statesboro	Statesboro Muni	13224	18838	187	
Wallace	Henderson	14307	20094	39	
Walterboro	Walterboro Muni	13441	19222	98	
Whiteville	Columbus Co.	14081	19853	90	
Wilmington	New Hanover	14108	20146	32	
Wilson	Wilson Muni	14748	20059	161	
Winnboro	Fairfield Co.	14019	18983	574	
Winston Salem	Smith Reynolds	14839	19258	970	

## LEGEND

**Civil-Public use airport**  
**SANTA MONICA**  
 ATIS 119.15  
 175-50

Airport Name  
 Advisory Frequency (if available)  
 Elevation (feet) — Length (hundreds of feet)

VOR

VORTAC (Distance Measuring Equipment Able)

VOR DME

Non Directional Beacon

If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

## AIRPORT NAME ABBREVIATIONS

CO County  
 FLD Field  
 INTL International  
 MUNI Municipal





Alma

Bacon Co.

12789N 18598E

alt. 201

FWY 15-33

5000 x 100



Brooksville Hernando Co

11461N 18702E

alt 76

FWY 9-27

7000 x 150

FWY 2-20

5000 x 150



Brunswick

Glynco Jetport

12696N 1859CE  
alt. 26

RWY 7-25 8001 x 150

Canilla - Mitchell Co

12610N 17954E  
alt. 171

RWY 8-26 3200 x 60

Brunswick

Malcom McKinnon

12650N 19020E  
alt. 20RWY 4-22 5421 x 150  
RWY 15-33 3313 x 100

Cape Canaveral

Cape Canaveral Skid Pad

11519N 19408E  
alt. 10

RWY 13-31 10000 x 300



Cape Canaveral

Shuttle Landing Facility

11578N 19355E  
alt. 9

Rwy 15-33      17500 x 350



Cordelle

Crisp Co - Cordelle

12957N 19119E  
alt. 309

Rwy 4-22      5000 x 100  
Rwy 9-27      5000 x 100



Cross City

Cross City

11950N 18425E  
alt. 42

Rwy 4-22      5000 x 150  
Rwy 13-31      5000 x 150



Daytona Beach

Daytona Beach Regional

11808N 19210E  
alt. 35

Rwy 6L-24R      7500 x 150  
Rwy 16-34      4000 x 150  
Rwy 6R-24L      3197 x 100

Donalsonville

Donalsonville Muni

12511N 17733E  
alt. 160

Rwy 18-35 5000 x 100  
Rwy 9-27 4000 x 150



Fernandina Beach

Fernandina Beach Muni

12414N 19014E  
alt. 15

Rwy 4-22 5350 x 100  
Rwy 13-31 5150 x 150  
Rwy 8-26 5000 x 150  
Rwy 17-35 5000 x 150

Fitzgerald Fitzgerald Muni

12838N 10354W  
alt. 365

Rwy 10-19 6200 x 100



Gainesville

Gainesville Regional

11993N 18737E  
alt. 152

Rwy 10-28 7503 x 150  
Rwy 6-24 4147 x 100

Hazelhurst

Hazelhurst

12937N 18537E  
alt. 255

RWY 14-32 4500 x 75

Jacksonville

Jacksonville Intl (F)

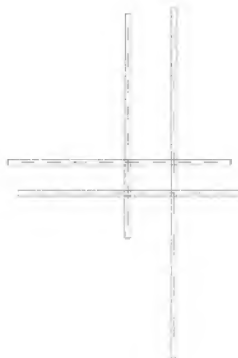
12356N 18931E  
alt. 30

RWY 7-25 3000 x 150  
RWY 13-31 7700 x 150

ATIS: 125.85

ILS 13

FREQUENCY: 108.9  
HEADING: 134  
ALTITUDE: 1629 ft 0 LOM



Jacksonville

Jacksonville NAS

12247N 18942E  
alt. 22

RWY 9-27 8000 x 200  
RWY 13-31 5977 x 200

Jacksonville

Cecil Field NAS

12236N 18851E  
alt. 60

RWY 18L-36R 12500 x 200  
RWY 9L-27R 8000 x 200  
RWY 9R-27L 8000 x 200  
RWY 18R-36L 8000 x 200



Jesup - Wayne Co.

12809N 18828E  
alt. 109

RWY 10-28 3800 x 75

Jacksonville

Craig Muni

12255N 19004E  
alt. 41RWY 13-31 4007 x 100  
RWY 4-22 4001 x 100

Jacksonville

Herlong

12260N 18892E  
alt. 87RWY 7-25 4000 x 100  
RWY 11-29 4000 x 100

Moultrie

Moultrie Muni

12564N 18129E  
alt. 294RWY 4-22 5127 x 150  
RWY 16-34 3878 x 75

Moultrie

Spence

12591N 18166E  
alt. 252

RWY 14-32 8000 x 150

DeSoto Maní (Taylor Fld)

11773N 18769E  
alt. 90

RWY 18-36 5007 x 150  
RWY 8-26 3009 x 50

Orlando

Orlando Intl

11465N 19139E  
alt. 96

RWY 18R-36L 12004 x 300  
RWY 18L-36R 12004 x 200



## Ormond Beach Muni

11857N 19184E  
alt. 29

RWY 8-26 4000 x 100  
RWY 17-35 3695 x 100



## Perry - Foley

12132N 18237E  
alt. 45

RWY 12-30 5013 x 150  
RWY 6-24 4900 x 150  
RWY 18-36 4900 x 150

## St Augustine

12137N 19080E  
alt. 10

RWY 6947 x 150  
RWY 2600 x 75  
RWY 2700 x 60



## Tallahassee

## Tallahassee Muni (F)

12257N 17942E  
alt. 81

RWY 9R-27L 8000 x 150  
RWY 18-36 6066 x 150  
RWY 9L-27R 3328 x 100





Thomasville

Thomasville Muni

12483N 18102E  
alt. 254

Rwy 4-22 5000 x 100  
Rwy 14-32 5000 x 150



Tifton

Henry Tift Myers

12712N 18239E  
alt. 355

Rwy 15-33 4994 x 120  
Rwy 9-27 3905 x 95  
Rwy 3-21 3389 x 75



Valdosta Regional

12446N 18332E  
alt. 204

Rwy 17-35 6302 x 150  
Rwy 3-21 5596 x 100  
Rwy 12-30 3628 x 75



Waycross-Ware Co

12667N 18645E  
alt. 142

Rwy 18-36 5042 x 150  
Rwy 13-31 5012 x 100  
Rwy 4-22 5035 x 100

## Alma (VOR)

12788N 18591E  
freq. 315.1

## Brooksville (NDB)

11463N 18781E  
freq. 278

## Brunswick (VOR)

12605N 19005E  
freq. 109.8

## Caidy (NDB)

12472N 18003E  
freq. 338

## Canilla (NDB)

12610N 17965E  
freq. 369

## Cape Canaveral (NDB)

11515N 19429E  
freq. 313

## Cross City (VOR)

11933N 18447E  
freq. 112

## Deland (NDB)

11753N 19131E  
freq. 201

## Dinns (NDB)

12343N 18890E  
freq. 344

## Donaldsonville (NDB)

12512N 17735E  
freq. 352

## Gainesville (VOR)

11939N 18706E  
freq. 116.2

## Geiger Lake (NDB)

11562N 18315E  
freq. 375

## Herlong (NDB)

12261N 18893E  
freq. 332

## Homerville (NDB)

12576N 18511E  
freq. 209

## Jacksonville (VOR)

12298N 19003E  
freq. 114.5

## Kissimmee (NDB)

11415N 19099E  
freq. 329

## Lakeland (VOR)

11251N 18885E  
freq. 116

## Leesburg (NDB)

11631N 18934E  
freq. 335

## Melbourne (VOR)

11358N 19399E  
freq. 113

## Ocala (VOR)

11773N 18768E  
freq. 113.7

## Orlando (VOR)

11527N 19127E  
freq. 112.2

## Ormond Beach (VOR)

11859N 19185E  
freq. 112.6

## Patten (NDB)

1251CN 18123E  
freq. 245

## Sanford (NDB)

11629N 19156E  
freq. 408

## Satellite (NDB)

11355N 19383E  
freq. 257

## Savannah (VOR)

13103N 19057E  
freq. 112.7

## St Augustine (VOR)

12140N 19073E  
freq. 109.4

## St Johns (NDB)

12322N 19045E  
freq. 305

## St. Petersburg (VOR)

11203N 18631E  
freq. 116.4

## Tallahassee (VOR)

12326N 17928E  
freq. 117.5

## Taylor (VOR)

12340N 18607E  
freq. 112.9

## Taylor (VOR)

12342N 18505E  
freq. 112.9

## 24 - JACKSONVILLE

## Tift Myers (VOR)

12712N 18235E  
freq. 112.5

## Valdosta (VOR)

12402N 18332E  
freq. 110.4

## Vidalia (NDB)

13076N 18622E  
freq. 372

## Wakul (NDB)

12227N 17938E  
freq. 379

## Waycross (VOR)

12672N 18581E  
freq. 110.2

## Wynds (NDB)

11986N 18777E  
freq. 269



# AIRPORT DIRECTORY - JACKSONVILLE AREA

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
				(Feet)	(Ray/Freq)
Alma	Bacon Co.	12789	18598	201	
Brooksville	Hernando Co.	11461	18702	76	
Brunswick	Glynco Jetport	12696	18990	26	
Brunswick	Malcom McKinnon	12650	19020	20	
Camilla	Mitchell Co.	12610	17964	171	
Cape Canaveral	Canaveral Skid Pad	11519	19408	10	
Cape Canaveral	Shuttle Landing Facility	11578	19355	9	
Cordele	Crisp Co. - Cordele	12957	18119	308	
Cross City	Cross City	11950	18425	42	
Daytona Beach	Daytona Beach Regional	11808	19210	35	
Donalsonville	Donalsonville Muni	12511	17733	160	
Fernandina Beach	Fernandina Beach Muni	12414	19014	15	
Fitzgerald	Fitzgerald Muni	12838	18314	365	
Gainesville	Gainesville Regional	11993	18737	152	
Hazelhurst	Hazelhurst	12937	18537	255	
Jacksonville	Jacksonville Int'l	12356	18931	30	* 108.9/13
ATIS 125.85					

Jacksonville	Jacksonville NAS	12247	18942	22	
Jacksonville	Cecil Field NAS	12238	18861	80	
Jacksonville	Craig Muni	12298	19004	41	
Jacksonville	Herlong	12260	18892	87	
Jesup	Wayne Co.	12809	18828	108	
Moultrie	Moultrie Muni	12564	18129	294	
Moultrie	Spence	12591	18166	292	
Ocala (Taylor)	Ocala Muni (Taylor)	11773	18769	90	
Orlando	Orlando Int'l	11466	19139	96	
Ormond Beach	Ormond Beach Muni	11857	19184	29	
Perry	Foley	12132	18237	45	
St. Augustine	St. Augustine	12137	19080	10	
Tallahassee	Tallahassee Muni	12257	17942	81	
Thomasville	Thomasville Muni	12483	18102	264	
Tifton	Henry Tift Myers	12712	18239	355	
Valdosta	Valdosta Regional	12446	18332	204	
Waycross	Ware Co.	12667	18645	142	

## LEGEND

	Civil-Public use airport
	Restricted/Private-Nonpublic use airport, having emergency use or landmark value
	Airport Name
	Advisory Frequency (if available)
	Elevation (feet) — Length (hundreds of feet)

SANTA MONICA  
ATIS 119.15  
175-50

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

Non Directional Beacon

VOR/DME  
NAME  
FREQUENCY

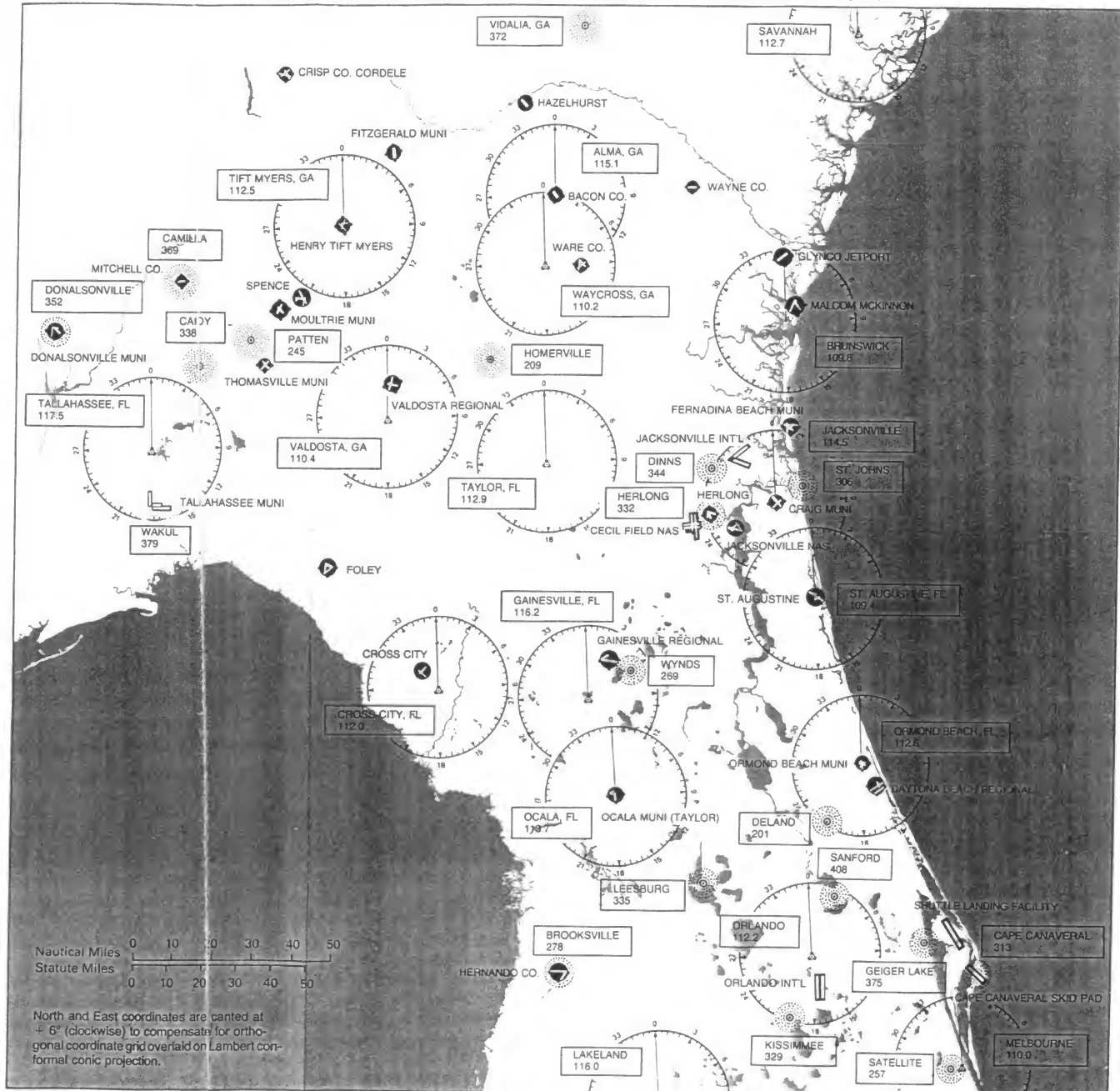
If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

## AIRPORT NAME ABBREVIATIONS

CO	County
FLD	Field
INTL	International
MUNI	Municipal
(PVT)	Private Airport (prior permission before landing)

# JACKSONVILLE AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.





## Ft Lauderdale, Ft Lauderdale Exec

10532N 19650E  
alt. 14

RWY 8-26	6001 x 100
RWY 13-31	3993 x 100



## Ft Myers, Page Fld

10651N 18934E  
alt. 18

RWY 5-23	6401 x 150
RWY 13-31	4997 x 150



Ft Myers, SW Florida Regional

10634N 19027E  
alt. 31

Rwy 6-24 8400 x 150

Ft Pierce, St Lucie Co Intl

11083N 19528E  
alt. 24

Rwy 9-27	5000 x 200
Rwy 4-22	5000 x 200
Rwy 14-32	5000 x 100
Rwy 18-36	5000 x 200



## Frostproof, River Ranch Resort

11184N 19200E  
alt. 55

RWY 16-34 4950 x 75



## Homestead General

10223N 19528E  
alt. 9

RWY 18-36 4000 x 100  
RWY 9-27 3000 x 75



## Immokalee, Immokalee

10589N 19167E  
alt. 37

RWY 4-22 5000 x 150  
RWY 9-27 5000 x 150  
RWY 18-36 5000 x 150

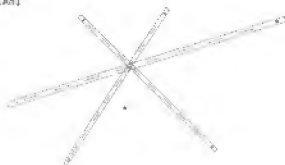


## Key West, Key West Intl

9779N 19065E  
alt. 4

RWY 9-27 4600 x 100





Key West, NAS Key West (F)

9790N 19114E  
alt. 6

RWY 7-25 10000 x 200  
RWY 3-21 7000 x 150  
RWY 13-31 7000 x 150



La Belle, La Belle

10732N 19147E  
alt. 18

RWY 14-32 3810 x 50



Lakeland, Lakeland Muni

11254N 18385E  
alt. 142

RWY 9-27 6000 x 150  
RWY 13-31 5002 x 150  
RWY 5-23 5000 x 150



Lake Wales, Lake Wales Muni

11220N 15039E  
alt. 125

RWY 6-24 4000 x 100  
RWY 17-35 4000 x 100

## Marathon

9873N 19356E  
alt. 6

RWY 7-25 5000 x 100

## Marco Island, Marco

10402N 19075E  
alt. 6

RWY 17-35 5008 x 100

## Miami, Miami Intl (F)

19357N 19615E  
alt. 10

RWY 9R-27L 13002 x 150  
RWY 9L-27R 10502 x 200  
RWY 12-30 9501 x 150

ILS 27R

FREQUENCY: 109.1  
HEADING: 270  
ALTITUDE: 1369 ft. Q 10M



Miami, Opa Locka West (F)

10449N 19561E  
alt. 8

Rwy 9-27 3000 x 150  
Rwy 18-36 3000 x 150



Miami, Tamiami

10288N 19559E  
alt. 10

Rwy 9L-27R 5002 x 150  
Rwy 9R-27L 4999 x 150  
Rwy 13-31 4001 x 150



Naples, Naples Muni

10458N 19028E  
alt. 9

Rwy 4-22 5000 x 150  
Rwy 13-31 5000 x 100



Okeechobee, Okeechobee Co

10070N 19354E  
alt. 34

Rwy 4-22 5000 x 150  
Rwy 13-31 4000 x 100



## Pahokee, Palm Beach Co Glades

16770N 15429E  
alt. 17

RWY 17-35 4620 x 75  
RWY 3-25 1617 x 100



## Pompano Beach, Pompano Beach Airpark

10558N 19674E  
alt. 20

RWY 14-32 4420 x 150  
RWY 5-23 4000 x 150  
RWY 10-28 3500 x 100



## Punta Gorda, Charlotte Co

19791N 18922E  
alt. 25

RWY 3-21 5000 x 150  
RWY 9-27 5000 x 150  
RWY 15-33 4800 x 150



## Sarasota, Sarasota-Bradenton

10983N 18696E  
alt. 28

Rwy 14-32 7003 x 150  
Rwy 4-22 5004 x 150



## St Petersburg-Clearwater Intl

11205N 18630E  
alt. 11

Rwy 17L-35R 7989 x 150  
Rwy 4-22 5500 x 150  
Rwy 9-27 5165 x 150  
Rwy 17R 35L 4000 x 75

## Sebring, Sebring Airport and Industrial Park

11041N 19160E  
alt. 63

Rwy 18-36 5190 x 300  
Rwy 14-32 5190 x 300



Tampa, Tampa Int'l (F)

1124GN 1869CE  
alt. 27

RWY 18R-36L 11000 x 150  
RWY 18L-36R 8300 x 150  
RWY 9-27 6998 x 150



Tampa, MacDill AFB

11186 19704  
alt. 14

RWY 4-22 11420 x 250



Venice, Venice Muni

10845N 18748E  
alt. 19

RWY 4-22 5000 x 150  
RWY 13-31 5000 x 150



## Vero Beach, Vero Beach Muni (F)

11154N 19505E  
alt. 25

RWY 11R-29L 7180 x 100  
RWY 4-22 4375 x 100  
RWY 11L-29R 2637 x 50



## West Palm Beach, Palm Beach Intl (F)

10746N 19662E  
alt. 19

RWY 9L-27R 7989 x 150  
RWY 13-31 6930 x 150  
RWY 9R-27L 3152 x 75

ATIS: 123.75

ILS 9L

FREQUENCY: 109.3  
HEADING: 96  
ALTITUDE: 1906 ft BLOM



Winter Haven, Bartow Muni

11241N 10979E

alt. 128

RWY 5-23 5000 x 100

RWY 9-27 5000 x 150



Concho Town

9749N 20746E

alt. 15

RWY 10-28 5000 x 100

Freeport Int'l (F)

10737N 20209E

alt. 7

RWY 6-24 11000 x 150





## Grand Bahama Aux AF

10702N 20338E  
alt. 9

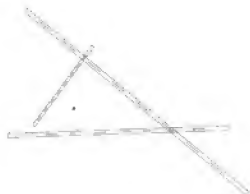
RWY 6-24 7200 x 150



## Marsh Harbour

10703N 20830E  
alt. 10

RWY 9-27 5000 x 150



## Nassau Int'l (F)

10136N 20743E  
alt. 10

RWY 13-31 11000 x 150  
RWY 9-27 8000 x 150  
RWY 4-22 2700 x 100



## South Bimini

26140N 20620E  
alt. 20

RWY 5-27 5000 x 150



## Bimini (VOR)

10350N 20011E  
freq. 116.7

## Biscayne Bay (VOR)

10306N 19666E  
freq. 117.1

## Cape Canaveral (NDB)

11515N 19429E  
freq. 313

## Cook (NDB)

10356N 19596E  
freq. 365

## DeLand (NDB)

11753N 19131E  
freq. 201

## Fish Hook (NDB)

9774N 19073E  
freq. 332

## Fort Pierce (NDB)

11083N 19528E  
freq. 275

## Freeport (NDB)

10719N 20184E  
freq. 209

## Treasure Bay

10871N 20702E  
alt. 11

RWY 13-31

2000 x 150

## Freeport (VOR)

10735N 20210E  
freq. 113.2

## Ft. Lauderdale (VOR)

10477N 19662E  
freq. 111.4

## Ft. Myers (VOR)

10553N 19982E  
freq. 117.6

## Ft. Pierce (NDB)

11084N 19529E  
freq. 275

## Ft. Lauderdale (VOR)

10478N 19663E  
freq. 111.4

## Ft. Myers (VOR)

10552N 19983E  
freq. 117.6

## Geiger Lake (NDB)

11562N 19315E  
freq. 375

## Key West (VOR)

9791N 19067E  
freq. 113.5

## Kissimmee (NDB)

11415N 19099E  
freq. 329

## La Belle (VOR)

10159N 19159E  
freq. 110.4

## Lakeland (VOR)

11251N 18985E  
freq. 116

## Leesburg (NDB)

11631N 18934E  
freq. 335

## Marathon (NDB)

9863N 19340E  
freq. 260

## Marsh Harbour (NDB)

10763N 20831E  
freq. 351

## Melbourne (VOR)

11346N 19407E  
freq. 110

## Miami (NDB)

10345N 19682E  
freq. 322

## Miami (VOR)

10422N 19547E  
freq. 115.9

## Nassau (VOR)

10133N 20759E  
freq. 112.7

## OCALA ,FL (VOR)

11770N 18767E  
freq. 113.7

## Orlando (VOR)

11527N 19127E  
freq. 112.2

## Pahokee (VOR)

10772N 19430E  
freq. 112.4

## Palm Beach (VOR)

10742N 19667E  
freq. 115.7

## Perrine (NDB)

10287N 19543E  
freq. 266

## Plantation (NDB)

10503N 19636E  
freq. 242

## Punta Gorda (VOR)

10791N 18924E  
freq. 110.2

## Rubin (NDB)

10743N 19619E  
freq. 356

## Sanford (NDB)

11629N 19156E  
freq. 408

## Sarasota (VOR)

10985N 18695E  
freq. 115.2

## Satellite (NDB)

11334N 19381E  
freq. 257

## Sebring (NDB)

11041N 19156E  
freq. 382

## St. Petersburg (VOR)

11203N 18631E  
freq. 116.4

## Treasure Cay (NDB)

10847N 20741E  
freq. 233

## 30 - MIAMI

## Treasure Cay (VOR)

10867N 20710E  
freq. 112.9

## Vero Beach (VOR)

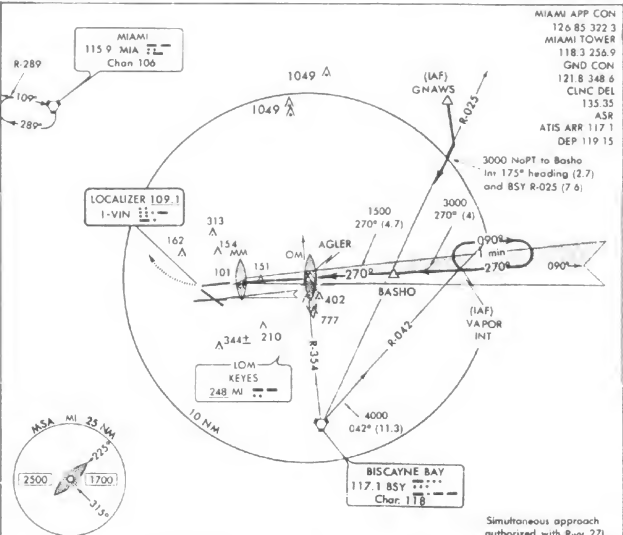
11162N 19478E  
freq. 117.3

Amdt 10

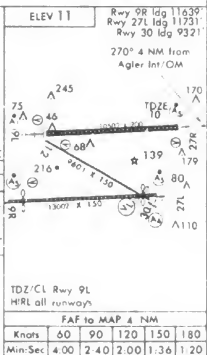
# ILS RWY 27R

AL-257 (FAA)

MIAMI INTERNATIONAL (MIA)  
MIAMI, FLORIDA



<b>MISSED APPROACH</b> Climb to 420 then climbing right turn to 3000 direct MIA VORTAC and hold				
<b>AGLER INT OM</b> 1369				
<b>BASHO INT</b>				
<b>VAPOR INT</b>				
<b>One Minute Holding Pattern</b>				
090° → 4000 ← 270° 4000 GS 3.00° TCH 58 1500 when directed by ATC				
<b>CATEGORY</b>				
<b>S-ILS 27R</b>				
<b>S-LOC 27R</b>				
<b>CIRCLING</b>				



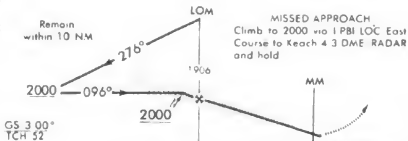
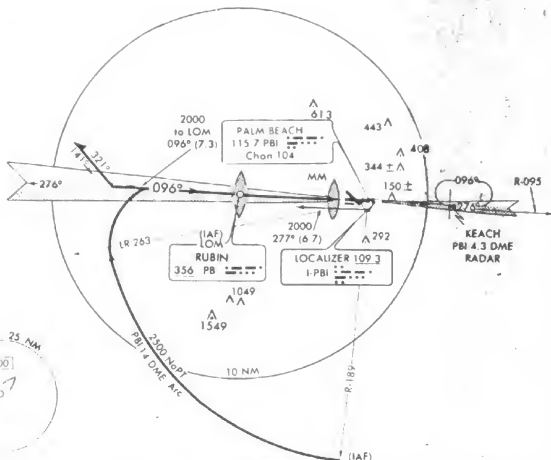
# ILS RWY 27R

25°48'N - 80°17'W

MIAMI, FLORIDA  
MIAMI INTERNATIONAL (MIA)

Amdt 21  
**ILS RWY 9L**

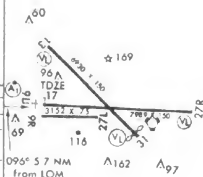
 WEST PALM BEACH/PALM BEACH INTL(PBI)  
 AL-449 (FAA) WEST PALM BEACH, FLORIDA

 PALM BEACH APP CON  
 124.6 317.4  
 PALM BEACH TOWER  
 119.1 257.8  
 GND CON  
 121.9  
 CLNC DEL  
 121.6  
 ASR  
 ATIS 123.75


CATEGORY	A	B	C	D
S-ILS 9L	217/24 200 (200-1/2)			
S-LOC 9L	480/24 463 (500-1/4)	480/40 463 (500-1/4)	480/50 463 (500-1)	
CIRCLING	480-1 461 (500-1)	500-1 1/2 481 (500-1 1/2)	660-2 541 (700-2)	

△

ELEV 19 Rwy 31 ldg 6502


 REIL Rwy 13, 27R and 31  
 MIREL Rwy 13-31  
 HIREL Rwy 9L 27R

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min. Sec	5.42	3.48	2.51	2.17	1.54

**ILS RWY 9L**

26°41'N-80°06'W

WEST PALM BEACH, FLORIDA  
WEST PALM BEACH/PALM BEACH INTL (PBI)

# AIRPORT DIRECTORY - MIAMI AREA

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS (Rev Freq)
Ft Lauderdale	Ft Lauderdale Exec	10532	19650	14	
Ft Myers	Page Fid	10651	18984	18	
Ft Myers	SW Florida Regional	10634	19027	31	
Ft Pierce	St. Lucie Co. Int'l	11083	19526	24	
Frostproof	River Ranch Resort	11184	19200	55	
Homestead	Homestead General	10223	19528	9	
Immokalee	Immokalee	10599	19167	37	
Key West	Key West Int'l	9779	19085	4	
Key West	NAS Key West	9790	19114	6	
La Belle	La Belle	10732	19147	18	
Lakeland	Lakeland Muni	11254	18885	142	
Lake Wales	Lake Wales Muni	11220	19039	125	
Marathon	Marathon	9873	19356	6	
Marco Island	Marco	10402	19075	6	
Miami	Miami Int'l	10357	19615	10	109.1/27R
Miami, Hialeah	Opa Locka West	10419	19561	8	
Miami	Tamiami	10288	19569	10	
Naples	Naples Muni	10468	19028	9	
Okeechobee	Okeechobee Co.	10970	19354	34	
Pahokee	Palm Beach Co. Glades	10770	19429	17	
Pompano Beach	Pompano Beach Airpark	10558	19674	20	
Punta Gorda	Charlotte Co.	10791	18922	25	
St. Petersburg	Clearwater Int'l	11205	18630	11	
Sarasota	Sarasota-Bradenton	10983	18696	28	
Sebring	Sebring Airport/Ind. Park	11041	19160	63	
Tampa	Tampa Int'l	11240	18690	27	
Tampa	MacDill AFB	11186	18704	14	
Venice	Venice Muni	10845	18748	19	
Vero Beach	Vero Beach Muni	11154	19505	25	
West Palm Beach	West Palm Beach Int'l	10746	19662	19	109.3/9L
Winter Haven	Bartow Muni	11241	18979	128	

## BAHAMAS

Congo	Congo Town	9749	20746	15	
Freeport	Freeport Int'l	10737	20209	7	
Grand Bahama	Grand Bahama Aux AF	10782	20338	9	
Marsh Harbour	Marsh Harbour	10783	20830	10	
Nassau	Nassau Int'l	10136	20749	10	
South Bimini	South Bimini	10350	20020	10	
Treasure Cay	Treasure Cay	10871	20702	11	

## LEGEND



Civil-Public use airport

SANTA MONICA  
ATIS 119.15  
175-50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

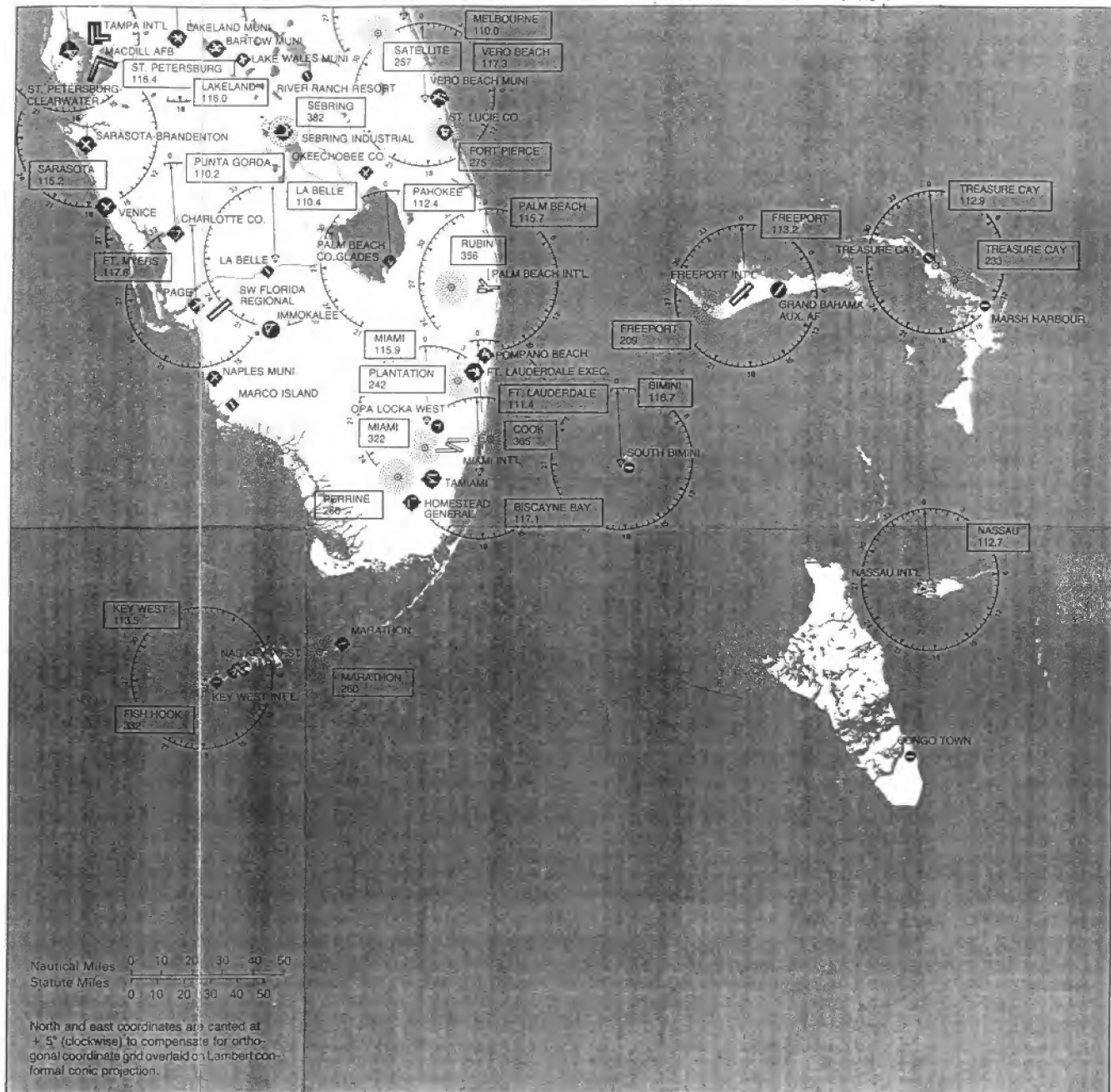
Non Directional Beacon

VOR/DME  
NAME  
FREQUENCY

If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

# MIAMI AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.





Atlantic City, NJ      Atlantic City      (F)

16507N    20982E  
alt. 76

Rwy 13-31    10000 X 180  
Rwy 04-22    6144 X 150





Baltimore, MD

Martin State

16367N 20376E

alt. 24

RWY 14-32 7000 X 180



Baltimore, MD

Baltimore - Washington Int'l

16296N 20300E

alt. 146

RWY 15R-33L 9519 X 150

RWY 10-28 9452 X 200

RWY 04-22 6005 X 150

RWY 15L-33R 3199 X 75

□ 5 33L

Frequency: 111.7

Heading: 332 degrees

Altitude: 1465 ft @ LOM



Berlin, NJ

Camden-Burlington Co

16650N 20854E

alt. 138

RWY 05-23 2590 X 50



Cambridge, MD      Cambridge-Dorchester

1605CN    20550E  
alt. 20

RWY 16-34    4000 X 75



Dover - Cheswold, DE Delaware Airpark

16362N    20563E  
alt. 55

RWY 09-27    3484 X 50



Elizabeth City, NC    Elizabeth City CGAS

15055N    20632E  
alt. 12

RWY 10-28    7219 X 150  
RWY 01-19    4518 X 150



Emporia, VA

Emporia Muni

15197N    20146E  
alt. 126

RWY 15-33    5509 X 100



Frederick, MD

Frederick Muni

16366N 20052E  
alt. 305

RWY 01-19 4000 X 100  
RWY 05-23 3800 X 100



Lancaster, PA

Lancaster

16714N 20374E  
alt. 403

RWY 08-26 5398 X 150



Georgetown, DE

Sussex Co.

16141N 20770E  
alt. 51

RWY 04-22 5000 X 150  
RWY 13-31 2325 X 50



Manassas, VA

Manassas

16063N 20046E  
alt. 193

RWY 16L-34R 5700 X 100  
RWY 16R-34L 3703 X 100

Midland, VA      Warrenton-Fauquier

16000N 19984E  
alt. 325

Rwy 14-32 4106 X 50  
Rwy 06-24 2090 X 40

Newport News, VA      Patrick Henry Int'l (F)

15319N 20469E  
alt. 43

Rwy 07-25 8003 X 150  
Rwy 02-20 6526 X 150

Newport News, VA      Langley AFB

15406N 20519E  
alt. 11

Rwy 07-25 10000 X 150

Norfolk, VA      Chambers Field

15347N 20553E  
alt. 27

Rwy 01-19 4300 X 250  
Rwy 10-28 8150 X 200



Norfolk, VA      Norfolk Int'l

15333N 20584E  
alt. 27

Rwy 05-23 9000 X 150  
Rwy 14-32 4876 X 150

115 23  
Frequency 109.1  
Heading 227 degrees  
Altitude 1700 ft. @ 5.0 DME

Orange, VA      Orange Co

15840N 19878E  
alt. 454

Rwy 07-25 3200 X 75



Petersburg, VA      Petersburg      Muni

15398N 20117E  
alt. 194

Rwy 05-23 5000 X 150  
Rwy 14-32 3060 X 50



Philadelphia, PA Philadelphia Int'l (F)

16651N 20733E  
alt. 21

RWY 09L-27R 9500 x 150  
RWY 09R-27L 10500 x 200  
RWY 17-35 5450 x 150

ILS 9R  
Frequency: 109.3  
Heading: 85 degrees  
Altitude: 1855 ft. @ LOM

ATIS 133.40

Philadelphia, PA Northeast Philadelphia (F)

16751N 20801E  
alt. 121

RWY 06-24 7000 x 150  
RWY 15-33 5000 x 150



Salisbury, MD

Salisbury - Wicomico Co

15985N 20741E  
alt. 51

Rwy 05-23 5000 X 150  
Rwy 14-32 5500 X 150

ILS 32  
Frequency: 106.7  
Heading: 316 degrees  
Altitude: 1953 ft. @ 10M

Richmond, VA

Byrd Int'l

15549N 20169E  
alt. 168

Rwy 16-34 8999 X 150  
Rwy 02-20 5607 X 150  
Rwy 07-25 5316 X 100

ILS 36  
Frequency: 110.7  
Heading: 156 degrees  
Altitude: 2461 ft. @ 10M

ATIS 119.15



Suffolk, VA

Suffolk

15276N 20456E  
alt. 72

Rwy 07-25 5000 X 100  
Rwy 15-33 3250 X 150

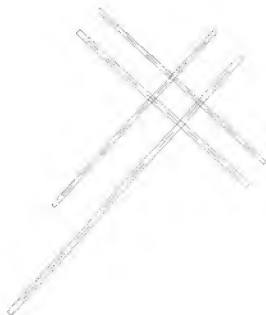


Trenton, NJ

Mercer Co.

16849N 20854E  
alt. 213

Rwy 06-24 6006 X 150  
Rwy 16-34 4800 X 150  
Rwy 11-29 2999 X 150



Virginia Beach, VA Oceana NAS

15307N 20649E  
alt. 22

Rwy 05L-23R 8000 X 150  
Rwy 05R-23L 12000 X 200  
Rwy 14L-32R 8000 X 150  
Rwy 14R-32L 8000 X 200





Washington, DC

Andrews AFB

6127N 20255E  
alt. 281

RWY 01L 19R 9300 X 200  
RWY 01R 19L 9755 X 150

Washington, DC

Washington Nat'l

16135N 20192E  
alt. 15

RWY C3-21 4905 X 150  
RWY 15-33 5189 X 200  
RWY 10-35 6859 X 150



Wilmington, DE

Greater Wilmington - New Castle Co (F)

16552N 20627E  
alt. 80

RWY 01-19 7002 X 200  
RWY 09-27 7165 X 150  
RWY 14-32 5004 X 150

Washington, DC Dulles Intl (F)

16163N 20055E  
alt. 313

RWY 01L-19R 11501 X 150  
RWY 01R-19L 11500 X 150  
RWY 11L-29R 3080 X 75  
RWY 12-30 10001 X 150

ILS :R  
Frequency: 110.1  
Heading: 10 degrees  
Altitude: 1047 ft. @ LOM

ATIS 134.85

Woodbridge, VA

Woodbridge

16058N 20109E  
alt. 276

RWY 01-19 2250 X 45

## Andrews AFB (VOR)

16126N 20255E  
freq. 113.1

## Armel (VOR)

16157N 20047E  
freq. 113.5

## Atlantic City (VOR)

16506N 20983E  
freq. 108.5

## Baltimore (VOR)

16292N 20302E  
freq. 115.1

## Brooke (VOR)

15904N 20116E  
freq. 111.8

## Cape Charles (VOR)

15535N 20630E  
freq. 112.2

## Casanova (VOR)

16014N 19928E  
freq. 116.3

## Cedar Lake (VOR)

16522N 20848E  
freq. 115.2

York, PA

York

16601N 20199E  
alt. 466

RWY 16-34 4190 X 100

## Goffield (VOR)

16379N 20182E  
freq. 114.4

## Coyle (VOR)

16666N 21009E  
freq. 113.4

## Dupont (VOR)

16552N 20527E  
freq. 114

## Elizabeth City (VOR)

18053N 20429E  
freq. 112.5

## Flat Rock (VOR)

15533N 19555E  
freq. 113.3

## Franklin (VOR)

15219N 20317E  
freq. 110.6

## Frederick (VOR)

16365N 20054E  
freq. 109

## Gordonsville (VOR)

15734N 19859E  
freq. 115.6

## Hagerstown (VOR)

16469N 19881E  
freq. 109.8

## Harrisburg (VOR)

16736N 20130E  
freq. 112.5

## Hopewell (VOR)

15479N 20248E  
freq. 112

## Kenton (VOR)

15365N 20684E  
freq. 111.4

## Lancaster (VOR)

16715N 20377E  
freq. 117.3

## Lawrenceville (VOR)

15228N 20003E  
freq. 112.9

## Martinsburg (VOR)

16335N 19898E  
freq. 112.1

## Middle River (VOR)

16368N 20376E  
freq. 116.6

## Modena (VOR)

16652N 20592E  
freq. 113.2

## Norfolk (VOR)

15332N 20585E  
freq. 116.9

## Patuxent (VOR)

15922N 20440E  
freq. 117.6

## Pottstown (VOR)

16787N 20612E  
freq. 116.5

## Richmond (VOR)

15549N 20159E  
freq. 114.1

## Salisbury (VOR)

15987N 20738E  
freq. 114.5

## Sea Isle (VOR)

16339N 20931E  
freq. 114.8

## Shawnee (VOR)

16220N 19811E  
freq. 115.3

## Tar River (VOR)

14849N 20142E  
freq. 117.8

## Washington (VOR)

16139N 20194E  
freq. 111

## Waterloo (VOR)

16199N 20810E  
freq. 112.6

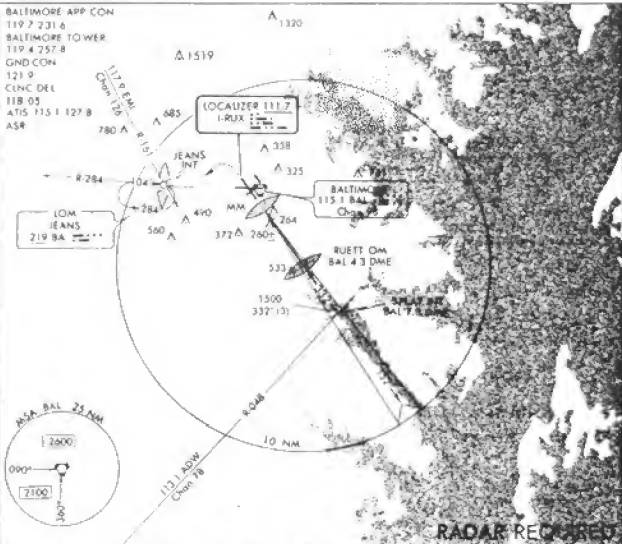
## Westminster (VOR)

16416N 20132E  
freq. 117.9

## Woodstown (VOR)

16548N 20731E  
freq. 112.8

BALTIMORE APP CON  
119 7 231 6  
BALTIMORE TOWER  
119 4 257 8  
GND CON  
121 9  
CINC DEL  
118 05  
ATIS 115 1 127 8  
ASR



RADAR REQUIRED

**MISSED APPROACH**  
Climb to 600 then climbing  
left turn to 2000 via BA1  
R-284 to Jeeps Int./LOM and  
hold

SPLAT INT  
BAL 7.2 DME

RUETT OM  
BAL 43 ONE

Year	Number of people
1980	1000
1985	1050
1990	1100
1995	1150
2000	1200

GS 3.00<sup>0</sup>

ICH 55

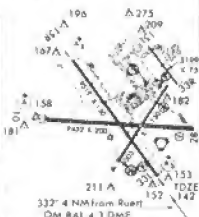
CATEGORY	A	B	C	D
S-ILS 331	342-1/2 200 (200-1/2)			
S-LOC 331	520-1/2 378 (400-1/2)			520-3/4 378 (400-1/4)
CIRCLING	640-1 494 (500-1)	640-1 1/2 494 (500-1 1/2)		760-2 614 (700-2)

CAT D5 LOC visibility increased ¼ mile for inappropriate AAM

▽  
△

ELEV 146	Rwy 15L Ldg 2659'
----------	-------------------

151 33R



102/CI Rwy 10  
REIL Rwy 4, 22, and 33R  
HRT Rwy 10-28, 15R 33L and 4 22

FAF to NADP &amp; NADH

Knob	60	90	120	150	180
Min Sec	4:00	7:40	2:00	7:30	1:20

ILS RWY 33L

19°10'N 76°40'W

BALTIMORE-WASHINGTON INTL (SWT)

Amdt 4

## ILS RWY 23

AL-291 (FAA)

NORFOLK INTERNATIONAL (ORF)  
NORFOLK VIRGINIA

NORFOLK APP CON  
118.9 257.3  
NORFOLK TOWER  
120.8 257.8  
GND CON  
121.9  
CLNC DEI  
118.5  
ATIS ARR 127.15  
DEP 127.35

HARCUM  
108.8 HCM  
Chan 23

LOCALIZER 109.1  
113.0  
Chan 28

2000 MSL (IAF)  
195°  
18.3

(IAF)  
KLINK INT  
113.0 12.3 DME

113.0 6.7 DME  
S RADAR

2000 to  
Klink Int  
044° (11.6)

NORFOLK  
116.9 ORF  
Chan 116

FRANKLIN  
110.6 FKN  
Chan 43

CALEY  
INT

MSA ORF 25 NM

1600

270°

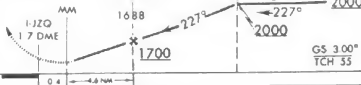
12 NM

ENROUTE FACILITIES

MISSED APPROACH  
Climb to 2000 via ORF  
VORTAC R-225 to Caley  
Int and hold

113.0 6.7 DME  
S RADAR

KLINK INT  
113.0 12.3 DME One Minute  
Holding Pattern

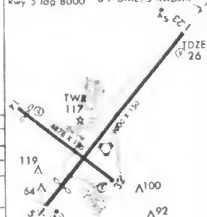


ELEV 27

Rwy 14 Idg 4664  
Rwy 5 Idg 8000

227° 5 NM

from 113.0  
6.7 DME S RADAR



REIL Rwy 14 and 32  
HIRL Rwy 5-23  
MIRL Rwy 14-32

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min/Sec	5:00	3:20	2:30	2:00	1:40

DME or radar required

Inoperative table does not apply

S-LOC Cuts: A, B, C, increase visibilities 1/4 mile, Cat D 1/2 mile, for inoperative  
MALSR

S-LOC Cat: D increase visibility 1/4 mile for inoperative MALSR

## ILS RWY 23

36°54'N - 76°12'W

NORFOLK, VIRGINIA  
NORFOLK INTERNATIONAL (ORF)

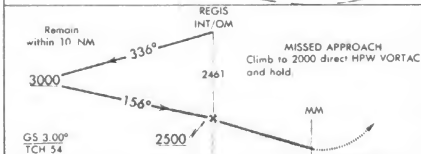
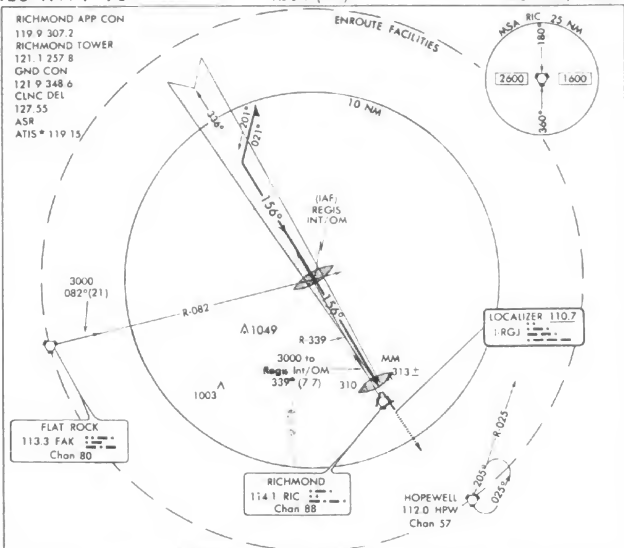




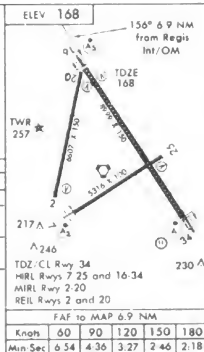
Amdt 6

## ILS RWY 16

AL-347 (FAA)

RICHMOND INTL (BYRD FIELD) (RIC)  
RICHMOND, VIRGINIA

CATEGORY	A	B	C	D
S-ILS 16	368/24 200 (200-½)			
S-LOC 16	740/24	572 (600-½)	740/50 572 (600-1)	740/60 572 (600-1½)
CIRCLING	740-1	572 (600-1)	740-1½ 572 (600-1½)	740-2 572 (600-2)



## ILS RWY 16

37°30'N - 77°19'W

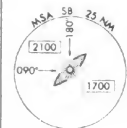
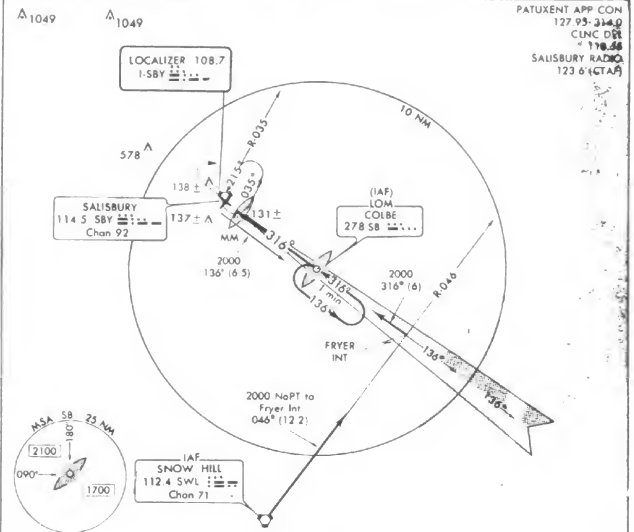
RICHMOND, VIRGINIA  
RICHMOND INTL (BYRD FIELD) (RIC)

32 - WASHINGTON

Amdt 4  
ILS RWY 32

SALISBURY-WICOMICO COUNTY REGIONAL (SBY)  
AL-977 (FAA)

PATUXENT APP CON  
127.93-314.0  
CLNC DFR  
178.58  
SALISBURY RADIO  
123.6 (CTAF)



**MISSED APPROACH**  
Climb to 500 then climbing right turn to 2000 via SBY R-035 then direct SBY VORTAC and hold

**One Minute Holding Pattern**

**LOM** 1953

**MM** 2000

**316°** and **136°** headings

**GS 3 00' TCH 54**

CATEGORY	A	B	C	D
S-ILS 32	251-1/2 200 (200-1/2)			
S-LOC 32	380-1/2 329 (400-1/2)		380-3/4 329 (400-1/2)	
CIRCLING	440-1 389 (400-1)	520-1 469 (500-1)	520-1 1/2 469 (500-1 1/2)	620-2 569 (600-2)

Cat D S LOC visibility increased 1/4 mile for inoperative MALS or MM

**ELEV 51**

The diagram shows the intersection of **ILS RWY 32** and **ILS RWY 14**. Key altitudes and distances include:

- 113 A**, **126 A**, **120 A**, **119 A**, **87 A**, **121 A**, **114 A**
- 316° 5.7 NM from LOM**
- TDZE 51 A**
- 3000 F 150** and **3000 F 150** markings.

**REIL Rwy 5, 14 and 23**  
**MIRE Rwy 5-23 and 14-32**

**FAF to MAP 5.7 NM**

Knots	60	90	120	150	180
Min. Sec	5.42	3.48	2.51	2.17	1.54

ILS RWY 32

38°20'N - 75°31'W  
SALISBURY-WICOMICO COUNTY REGIONAL (SBY)

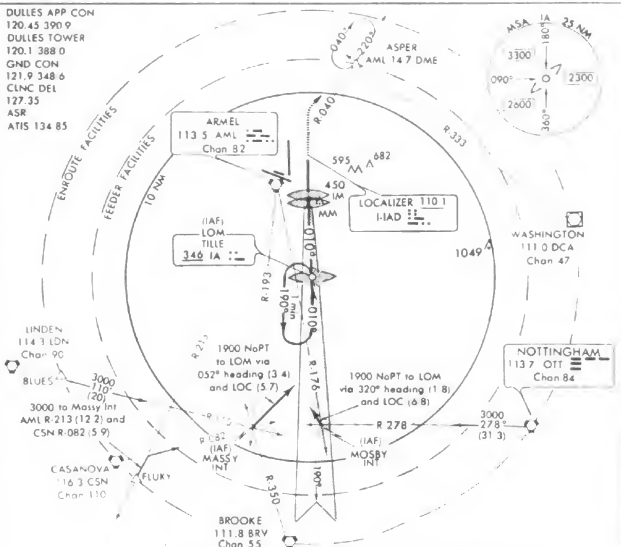
Amdt 17

ILS RWY 1R

AL-5100 (FAA)

WASHINGTON /DULLES INTL (IAD)  
WASHINGTON, D.C.

DULLES APP CON  
120.45 3909  
DULLES TOWER  
120.1 3880  
GND CON  
121.9 3486  
CLNC DEL  
127.35  
ASR  
ATIS 134.85



### One Minute Holding Pattern

GS 3.00 <sup>a</sup>
<u>TCM 55</u>

**MISSED APPROACH**  
Climb to 800, then climbing right  
turn to 3000 via AML R 040 to  
Asper Int/AML 14.7 DME and hold

ELEV 313

TDZ/CI Rwy 1R and 19R



CATEGORY	A	B	C	D
S-LS 1R	513/18 200 (200- $\frac{1}{2}$ )			513/20 200 (200- $\frac{1}{2}$ )
S-LOC 1R	680/24 367 (400- $\frac{1}{2}$ )			680/40 367 (400- $\frac{3}{4}$ )
CIRCLING	800-1 487 (500-1)		820-1 $\frac{1}{2}$ 507 (600-1 $\frac{1}{2}$ )	880-2 567 (600-2)

Cat D S-LOC visibility increased to RVR 5000 for inoperative MM

FAF to MAP 4.6 NM					
Knots	60	90	120	150	180

## ILS RWY 1R

38°57'N 77°27'W

WASHINGTON, D C  
WASHINGTON/DULLES INTL (IAD)

# AIRPORT DIRECTORY - WASHINGTON AREA

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
				(Feet)	(Type/Freq)
Atlantic City	Atlantic City Int'l	16507	20982	76	
Baltimore	Washington Int'l	16296	20300	146	111.7/33L
Baltimore	Martin State	16367	20376	24	
Berlin	Camden-Burlington Co.	16650	20854	138	
Cambridge	Cambridge-Dorchester	16050	20550	20	
Dover-Cheswold	Delaware Airpark	16362	20663	56	
Elizabeth City	Elizabeth City	15055	20632	12	
Emporia	Emporia Muni	15197	20146	126	
Frederick	Frederick Muni	16366	20052	305	
Georgetown	Sussex Co.	16141	20770	51	
Lancaster	Lancaster	16714	20374	403	
Manassas	Manassas	16063	20046	193	
Midland	Warrenton-Fauquier	16000	19984	325	
Newport News	Langley AFB	15406	20519	11	
Newport News	Patrick Henry Int'l	15419	20469	43	
Norfolk	Chambers Field	15347	20553	27	
Norfolk	Norfolk Int'l	15333	20584	27	109.1/23
Orange	Orange Co.	15840	19878	454	
Petersburg	Petersburg Muni	15398	20117	194	
Philadelphia	Philadelphia Int'l	16651	20733	21	* 109.3/9R
	ATIS 133.40				
Philadelphia	Northeast Philadelphia	16751	20801	121	
Richmond	Byrd Int'l	15549	20169	168	110.7/16
	ATIS 119.15				
Salisbury	Salisbury-Wicomico Co.	15985	20741	51	108.7/32
Suffolk	Suffolk	15226	20456	72	
Trenton	Mercer Co.	16849	20854	213	
Virginia Beach	Oceana NAS	15307	20649	22	
Washington	Andrews AFB	16127	20255	281	
Washington	Washington Int'l	16135	20192	16	
Washington	Dulles Int'l	16163	20055	313	* 110.1/1R
	ATIS 134.85				
Wilmington	Greater Wilmington-New Castle Co.	16552	20627	80	
Woodbridge	Woodbridge	16058	20109	276	
York	York	16601	20199	486	

## LEGEND



Civil-Public use airport



Restricted/Private-Nonpublic use airport, having emergency use or landmark value

SANTA MONICA  
ATIS 119.15  
175-50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

Non Directional Beacon

VOR/DME  
NAME  
FREQUENCY

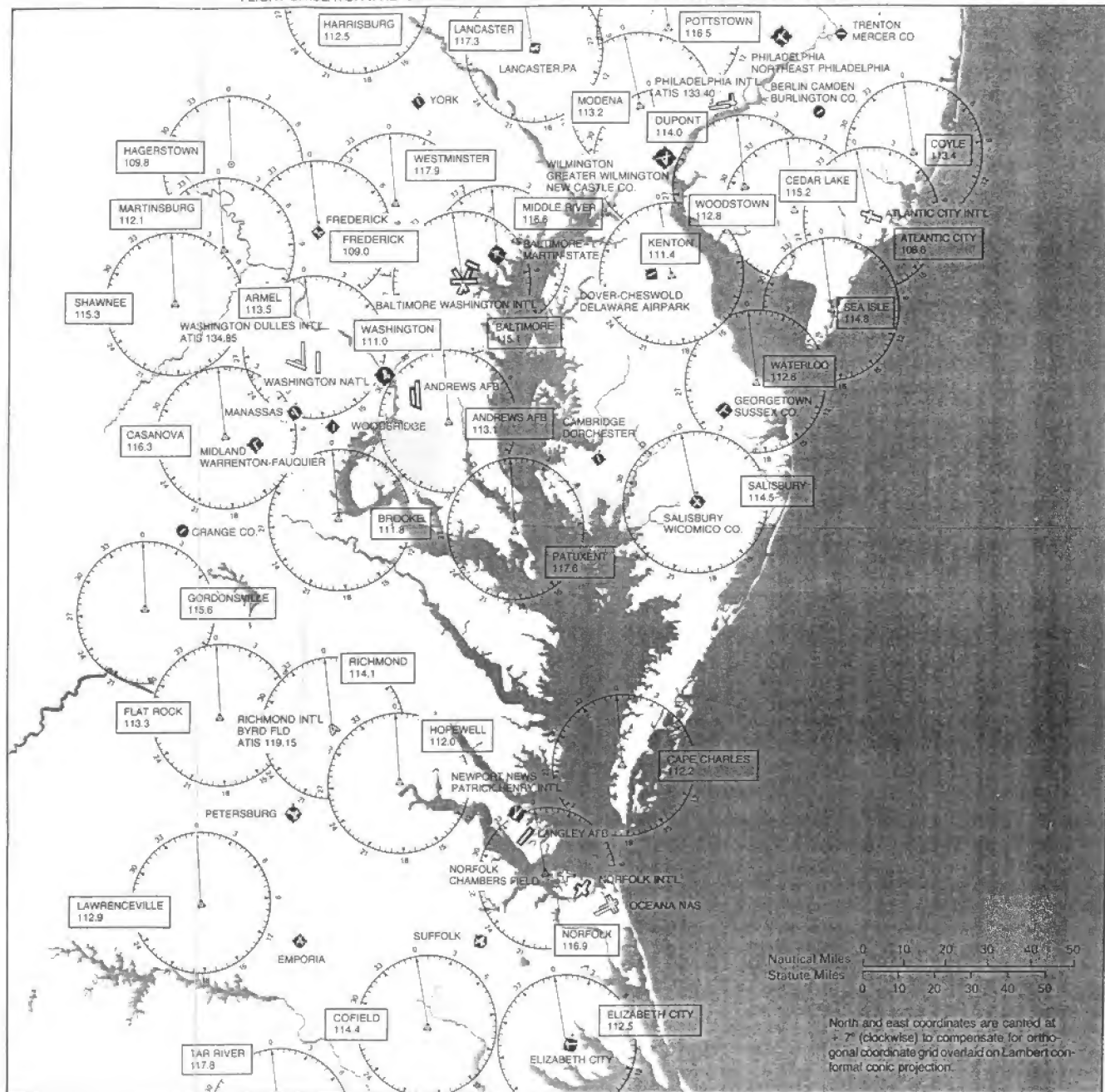
If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

## AIRPORT NAME ABBREVIATIONS

CO	County
FLD	Field
INTL	International
MUNI	Municipal
(PVT)	Private Airport (prior permission before landing)

# WASHINGTON AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



North and east coordinates are canted at + 7° (clockwise) to compensate for orthogon coordinate grid overlaid on Lambert conformal conic projection.

## Aurora

17152N 16293E  
alt 705

RWY 9-27 5100 X 100  
RWY 18-36 3205 X 75



## Badger, WI (VOR)

17732N 16459E  
freq 116.4

## Battle Creek (VOR)

17402N 17415E  
freq 109.4

## Battle Creek/W.K. Kellogg Reg. (BTL) (F)

17402N 17415E  
alt 954

RWY 13-31 4835 X 100  
RWY 9-27 4025 X 150  
RWY 5-23 10005 X 150



## Benton Harbor, MI

17311N 17046E  
alt 643

RWY 9-27 5110 X 100  
RWY 18-36 2500 X 100  
RWY 13-31 3660 X 100



## Bloomington - Normal, IL (F)

16593N 16246E  
alt 876

RWY 11-29 6500 X 150  
RWY 3-21 3720 X 100



## Bloomington, IL (VOR)

16593N 16242E  
freq 108.2

## Bloomington, IN (VOR)

16024N 17012E  
freq 110.2

## Boiler, IN (VOR)

16632N 16852E  
freq 115.6

## Bradford, IL (VOR)

16890N 16042E  
freq 114.7

## Burlington, IA (VOR)

16799N 15604E  
freq 111.4

## Capital (CAP) (VOR)

16337N 16120E  
freq 112.7

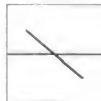
## Cappy, WI (MK) (NDB)

17605N 16570E  
freq 410

## Cedar Rapids Muni (CID) (F)

17209N 15355E  
alt 863

RWY 9-27 7000 X 150  
RWY 13-31 5455 X 150



## Cedar Rapids, IA (VOR)

17208N 15330E  
freq 117.6

## Champaign, IL (VOR)

16397N 16464E  
freq 110

## Champaign-Urbana/Univ. Of IL - Willard (CMI) (F)

16400N 16465E  
alt. 754

RWY 4-22 5300 X 150  
RWY 18-36 5300 X 150  
RWY 14-32 8105 X 150



## Chicago - O'Hare Intl (ORD) (F)

17244N 16578E  
alt. 666

RWY 14-32 13005 X 200  
RWY 14-32 10005 X 150  
RWY 9-27 10145 X 150  
RWY 9-27 7415 X 150  
RWY 4-22 8070 X 150  
RWY 4-22 7400 X 150  
RWY 18-36 5340 X 150



## Chicago Midway (MDW) (F)

17156N 16628E  
alt. 630

RWY 4-22 6100 X 150  
RWY 4-22 5510 X 150  
RWY 12-30 6520 X 150  
RWY 12-30 5100 X 150



## Chicago O'Hare, IL (VOR)

17247N 16580E  
freq. 113.9

## Chicago/Schaumburg

17247N 16515E  
alt. 794

RWY 10-28 3000 X 40



## Clew Intl (Plainfield)

17116N 16502E  
alt. 669

RWY 18-36 3375 X 55



## Connersville, IN (NDB)

16275N 17493E  
freq. 275



## Danville, IL (DNV)

16471N 16685E  
alt. 692

RWY 3-21 5400 X 100  
RWY 16-34 4005 X 100



## Danville, IL (VOR)

16511N 16695E  
freq. 111

## Davenport, IA (VOR)

17131N 15757E  
freq. 113.8

## Dayton, OH (VOR)

16427N 17731E  
freq. 114.5

## Deana (NDB)

17262N 16535E  
freq. 350

## Decatur, IL (VOR)

16269N 16276E  
freq. 117.2

## Dells, WI (VOR)

17920N 19997E  
freq. 115.1

## Du Page

17213N 16460E  
alt. 758

RWY 10-28 4005 X 80  
RWY 15-33 3405 X 100  
RWY 4-22 1505 X 100



## Dubuque Muni (F)

17422N 15684E  
alt. 1076

RWY 13-31 6500 X 150  
RWY 18-36 4900 X 150



## Dubuque, IA (VOR)

17421N 15684E  
freq. 115.8

## Dupage, IL (VOR)

17202N 16433E  
freq. 108.4

## Dwight (NDB)

16874N 16406E  
freq. 344



## Eau Claire, WI (VOR)

1853N 1548E  
freq 112.9

## Elkhart Muni, IN

17140N 17192E  
alt 777

RWY 9-27 5490 X 75  
RWY 17-35 4005 X 75



## Erwin (NDB)

17127N 16600E  
freq 332

## Fond du Lac Co. WI

18004N 16802E  
alt 810

RWY 9-27 3605 X 75  
RWY 18-36 5000 X 75



## Fort Wayne Muni (Baer Field) (FWA) (F)

16834N 17463E  
alt 804

RWY 5-23 9000 X 150  
RWY 14-32 8505 X 150  
RWY 9-27 5995 X 150



## Frankfort

17025N 16598E  
alt 774

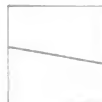
RWY 9-27 3175 X 55



## Frasca Fld

16448N 16482E  
alt 735

RWY 10-28 2555 X 30



## Ft. Wayne, IN (VOR)

16834N 17464E  
freq 117.8

## Galesburg, IL (VOR)

16791N 15760E  
freq 109.8

## Galesburg

16792N 15760E  
alt 764

RWY 2-20 5795 X 150  
RWY 10-28 3605 X 100



## Gibson City, IL

16594N 16461E  
alt. 758

RWY 18-36 2595 X 30



## Goshen, IN (VOR)

17059N 17176E  
freq. 113.7

## Grand Rapids, MI (VOR)

17611N 17330E  
freq. 110.2

## Grand Rapids/Kent Co Intl (GRR) (P)

17643N 17321E  
alt. 794

RWY 8-26 10000 X 150  
RWY 18-36 3400 X 100  
RWY 8-26 3930 X 75



## Green Bay, WI (VOR)

18354N 16485E  
freq. 117

## Grissom, IN (VOR)

16677N 17146E  
freq. 116.5

## Horlick, WI (VOR)

17569N 16601E  
freq. 117.7

## Howell (Chicago Blue Island)

1700N 16627E  
alt. 600

RWY 12-30 3000 X 40  
RWY 18-36 2600 X 35



## Indianapolis, IN (VOR)

16316N 17085E  
freq. 116.3

## Iowa City Muni, IA

1701N 15405E  
alt. 663

RWY 17-35 4300 X 150  
RWY 12-30 3905 X 150  
RWY 6-24 3905 X 150



## Jackson, MI (VOR)

17398N 17669E  
freq. 109.6

## Jacksonville, IL (VOR)

16284N 15816E  
freq. 108.6

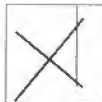
## Janesville, WI (VOR)

1748N 16195E  
freq. 113.4

## Janesville/Rock Co.

17500N 16213E  
alt. 807

RWY 13-31 5400 X 150  
RWY 4-22 6700 X 150  
RWY 18-36 5000 X 75



## Joliet, IL (VOR)

17056N 16449E  
freq. 112.3

## Joliet

17038N 16490E  
alt. 581

RWY 12-30 2975 X 100



## Kalamazoo (VOR)

17364N 17325E  
freq. 119

## Kalamazoo Co (AZO) (F)

17364N 17325E  
alt. 872

RWY 17-35 6500 X 150  
RWY 5-23 4005 X 150  
RWY 9-27 3355 X 150



## Kankakee, IL (IKK) (F)

16846N 16897E  
alt. 626

RWY 4-22 5985 X 100  
RWY 16-34 3205 X 75



## Kedzi (NDB)

17135N 16648E  
freq. 248

## Keeler, MI (VOR)

17326N 17139E  
freq. 116.6

## Kirkville, MO (VOR)

16472N 19051E  
freq. 114.6

## Knox, IN (VOR)

16967N 16983E  
freq. 108.8

## Kokomo Muni, IN

16626N 17190E  
alt. 830

RWY 5-23 5205 X 150  
RWY 14-32 4005 X 150



## Kokomo, IN (VOR)

16625N 17189E  
freq. 109.8

## La Crosse (VOR)

18056N 15526E  
freq. 108.4

## La Crosse, WI (F)

18057N 15527E  
alt. 653

RWY 3-21 5300 X 150  
RWY 13-31 5300 X 150  
RWY 18-36 8535 X 150



## Lansing, MI (VOR)

17592N 17584E  
freq. 110.8

## Lansing

17052N 16697E  
alt. 613

RWY 9-27 2435 X 80  
RWY 18-36 2325 X 80



## Lawrenceville, IL (VOR)

15885N 16006E  
freq. 113.5

## Lewis Univ.

17081N 16518E  
alt. 672

RWY 9-27 3000 X 55



## Litchfield, MI (VOR)

17309N 17574E  
freq. 111.2

## Lone Rock, WI (VOR)

17812N 15880E  
freq. 112.8

## Madison, WI (VOR)

17731N 16119E  
freq. 108.6

## Madison/Dane Co Reg. - Truax Fld (F)

17729N 16119E  
alt. 863

RWY 5-23 4700 X 100  
RWY 14-32 5845 X 150  
RWY 18-36 9040 X 150



## Manitowoc Co. WI

18159N 16633E  
alt. 649

RWY 7-25 3345 X 100  
RWY 17-35 5005 X 100



## Marion, IN (VOR)

16617N 17301E  
freq. 108.6

## Marshalltown, IA

17319N 14974E  
alt. 974

RWY 12-30 5000 X 100  
RWY 18-36 3800 X 55



## Mattoon (MTO) (VOR)

16158N 16465E  
freq. 109.4

## McGuire, OH (VOR)

16246N 17796E  
freq. 110

## McIntosh, OH (VOR)

16262N 17909E  
freq. 112.9

## Milwaukee/General Mitchell Fld

17651N 16572E  
alt. 679

RWY 7-25 8010 X 150  
RWY 1-19 9600 X 200  
RWY 1-19 4185 X 150  
RWY 6-24 3165 X 100  
RWY 13-31 5875 X 150



## Milwaukee/Lawrence J. Timmerman

17720N 16530E  
alt. 745

RWY 15-33 4110 X 75  
RWY 4-22 3205 X 75



## Moline, IL (VOR)

16965N 15704E  
freq. 114.4

## Moline/Quad City (MLJ) (F)

17011N 15736E  
alt. 590

RWY 13-31 6006 X 150  
RWY 5-23 4915 X 150  
RWY 9-27 6510 X 150



## Morris Mini

17004N 16413E  
alt. 587

RWY 18-36 2900 X 60



## Muncie (VOR)

16512N 17412E  
freq. 114.4

## Muncie/Delaware Co-Johnson Fld (F)

16514N 17411E  
alt. 938

RWY 14-32 6600 X 150  
RWY 2-20 4300 X 100



## Muskegon Co (F)

17760N 17036E  
alt. 626

RWY 6-24 6500 X 150  
RWY 0-18 3205 X 100  
RWY 14-32 9000 X 150



## Muskegon, MI (VOR)

17760N 17156E  
freq. 115.2

## New Lenox-Horrell

17025N 16571E  
alt. 745

RWY 13-31 2860 X 55  
RWY 5-23 2375 X 35



## Newton, IA (VOR)

17194N 14919E  
freq. 112.5

## Nodine, MN (VOR)

18089N 15469E  
freq. 117.9

## Northbrook, IL (VOR)

17341N 16557E  
freq. 113

## Oshkosh, WI (VOR)

18097N 16365E  
freq. 111.8

## Oshkosh/Wittman Field (OSH) (F)

18097N 16364E  
alt. 804

RWY 9-27 6170 X 100  
RWY 13-31 3210 X 100  
RWY 18-36 6700 X 150  
RWY 4-22 3425 X 100



## Ottumwa, IA (VOR)

16855N 15153E  
freq. 111.6

## Pal-Waukeee

17294N 16575E  
alt. 646

RWY 16-34 5140 X 100  
RWY 6-24 2035 X 40  
RWY 6-24 3655 X 55  
RWY 12-30 4450 X 55  
RWY 12-30 3230 X 40



## Patterson, OH (VOR)

16346N 17848E  
freq. 115.2

## Paxton, IL

16576N 16507E  
alt. 777

RWY 18-36 3405 X 55



## Peoria, IL (VOR)

16675N 15965E  
freq. 115.2

## Peoria/Greater Peoria (PIA) (F)

16670N 16000E  
alt. 659

RWY 13-31 8005 X 150  
RWY 4-22 6005 X 150



## Peotone, IL (VOR)

16937N 16618E  
freq. 113.2

## Polo, IL (VOR)

17239N 16066E  
freq. 111.2

## Pontiac, IL (VOR)

16742N 16316E  
freq. 109.6

## Port City, IA (VOR)

16090N 15541E  
freq. 108.8

## Pullman, MI (VOR)

17465N 17741E  
freq. 112.1

## Racine/Horlick-Racine WI

17569N 16601E  
alt. 672

RWY 4-22 6555 X 100  
RWY 14-32 4825 X 100



## Richmond (RFD) (VOR)

16306N 17905E  
freq. 110.6

## Roberts IL (VOR)

16637N 16900E  
freq. 116.8

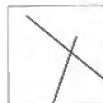
## Robinson, IL (VOR)

15963N 16679E  
freq. 108.4

## Rochester, MN (F)

18084N 15142E  
alt. 1319

RWY 13-31 7530 X 150  
RWY 2-20 5195 X 150



## Rockford, IL (VOR)

17342N 16164E  
freq. 110.8

## Rockford/Greater Rockford (RFD) (F)

17328N 16199E  
alt. 735

RWY 6-24 5000 X 150  
RWY 12-30 4100 X 100  
RWY 0-18 8200 X 150



## Rosenwood, OH (VOR)

16549N 17842E  
freq. 117.5

## Sanger (Monroe)

16980N 16646E  
alt. 784

RWY 5-23 2385 X 35  
RWY 9-27 2305 X 35





## Sheboygan Co. Mem. WI

1800N 1658E  
alt 748

RWY 13-31 3995 X 75  
RWY 3-21 5000 X 100



## Sheboygan, WI (NDB)

1796N 1658E  
freq 254

## Shelbyville, IN (VOR)

16240N 17280E  
freq 112

## South Bend (VOR)

17157N 17089E  
freq 115.4

## South Bend/Michiana Reg. (F)

17129N 17060E  
alt 790

RWY 9-27 7100 X 150  
RWY 6-24 3080 X 100  
RWY 18-36 4250 X 100



## Springfield, OH (VOR)

16358N 17916E  
freq 113.2

## St. Louis (STL) (VOR)

1884N 15729E  
freq 117.4

## Terre Haute, IN (VOR)

16168N 16809E  
freq 115.3

## Timmerman, WI (VOR)

17720N 16529E  
freq 112.5

## Troy, IL (VOR)

18840N 15920E  
freq 116

## Vandalia (VLA) (VOR)

15992N 16173E  
freq 114.3

## Veals (NDB)

16369N 16496E  
freq 407

## 26 - CHICAGO

### Waterloo Muni (ALO)

17806N 15151E  
alt. 872

RWY 6-24	5405 X 150
RWY 18-36	5405 X 150
RWY 12-30	8405 X 150



### Waterloo, IA (VOR)

17906N 15152E  
freq. 112.2

### Waukesha Co. WI

17689N 16468E  
alt. 932

RWY 10-28	4200 X 100
RWY 18-36	3006 X 75



### Waukon, IA (VOR)

17817N 15439E  
freq. 116.6

### White Cloud, MI (VOR)

17948N 17251E  
freq. 117.6

### Wolf Lake, IN (VOR)

17946N 17351E  
freq. 110.4

# AIRPORT DIRECTORY - CHICAGO AREA CHART

CITY	AIRPORT	NORTH	EAST	ALT. FMS. ILS	ATIS	VASI
Aurora	Aurora	17152	16393	705		
Battle Creek	W.K. Kellogg Reg (BTL)	17402	17418	954	110.5/23	127.25 31.5
Benton Harbor	Benton Harbor	17311	17046	643		
Bloomington	Bloomington-Normal	16593	16246	876		
Cedar Rapids	Cedar Rapids Muni (CID)	17209	15355	863		
Champaign	Frasca Fld	16448	16482	732		
Champaign-Urbana	Univ. of IL-Willard (CMI)	16400	16465	754	109.1/32	124.85 22.32
Chicago	O'Hare Intl (ORD)	17244	16578	666	109.7/14	135.15 14R,32L
Chicago	Merrill C. Meigs	17166	16671	590		121.3
Chicago	Midway (MDW)	17158	16628	620	111.5/4R	128.05 4R,22L,4L,22R,13R,31L,13L,31R
Chicago	Schaumburg	17247	16515	794		
Clow	Clow Intl (Plainfield)	17116	16502	689		
Danville	Danville (DNV)	16471	16885	692		
Du Page	Du Page	17213	16466	758		
Dubuque	Dubuque Muni	17422	15684	1078		
Elkhart	Elkhart Muni	17140	17192	777		
Fond du Lac	Fond du Lac Co.	18004	16382	610		
Fort Wayne	Fort Wayne Muni (Baer Field) (FWA)	16834	17463	804	109.9/32	121.25 23
Frankfort	Frankfort	17025	16596	774		
Galesburg	Galesburg	16792	15790	784		
Gibson City	Gibson City	16594	16461	758		
Grand Rapids	Kent Co. Intl (GRR)	17643	17321	794	108.3/8R	116.85 8L,16
Howell	Howell (Chicago/Blue Island)	17100	16627	600		
Iowa City	Iowa City Muni	17101	15405	683		
Janesville	Rock County	17509	16213	807		
Joliet	Joliet	17038	16490	581		
Kalamazoo	Kalamazoo Co (AZO)	17363	17325	672		
Kankakee	Kankakee (IKK)	16846	16597	626		123.0
Kokomo	Kokomo Muni	16626	17190	830		
La Crosse	La Crosse	16057	15527	653		
Lansing	Lansing	17050	16697	813		
Lewis	Lewis Univ.	17081	16516	672		
Madison	Dane Co Reg.-Traux Fld	17729	16119	863		
Manitowoc	Manitowoc Co.	18159	16633	649		
Marshalltown	Marshalltown	17319	14974	974		
Milwaukee	General Mitchell Fld	17651	16572	879		
Milwaukee	Lawrence J. Timmerman	17720	16530	745		
Moline	Quad City (MLI)	17011	15736	590	110.5/9	120.65 13.31,5,23,27
Morris	Morris Muni	17004	16413	587		
Muncie	Delaware Co-Johnson Fld	16514	17411	938		
Muskegon	Muskegon Co.	17760	17093	626		
New Lenox	Howell	17025	16571	745		
Ottumwa	Wittman Fld (OSH)	16503	16364	804	110.5/36	125.6 9.18
Pai-Wauke	Pai-Wauke	17294	16575	946		
Paxton	Paxton	16578	16507	777		
Peoria	Greater Peoria (PIA)	16670	16000	659		126.1 13.4,22
Racine	Horlick-Racine	17569	16601	672		
Rochester	Rochester	18084	15143	1319		
Rockford	Greater Rockford (RFD)	17328	16199	735		
Sanger	Sanger (Monroe)	16880	16646	784		
Sheboygan	Sheboygan Co Mem.	18001	16580	746		
South Bend	Michiana Reg.	17129	17098	794		
Waterloo	Waterloo Muni (ALO)	17506	15151	672		120.65 6.24,18,36
Waukegan	Waukegan Co.	17689	16468	932		

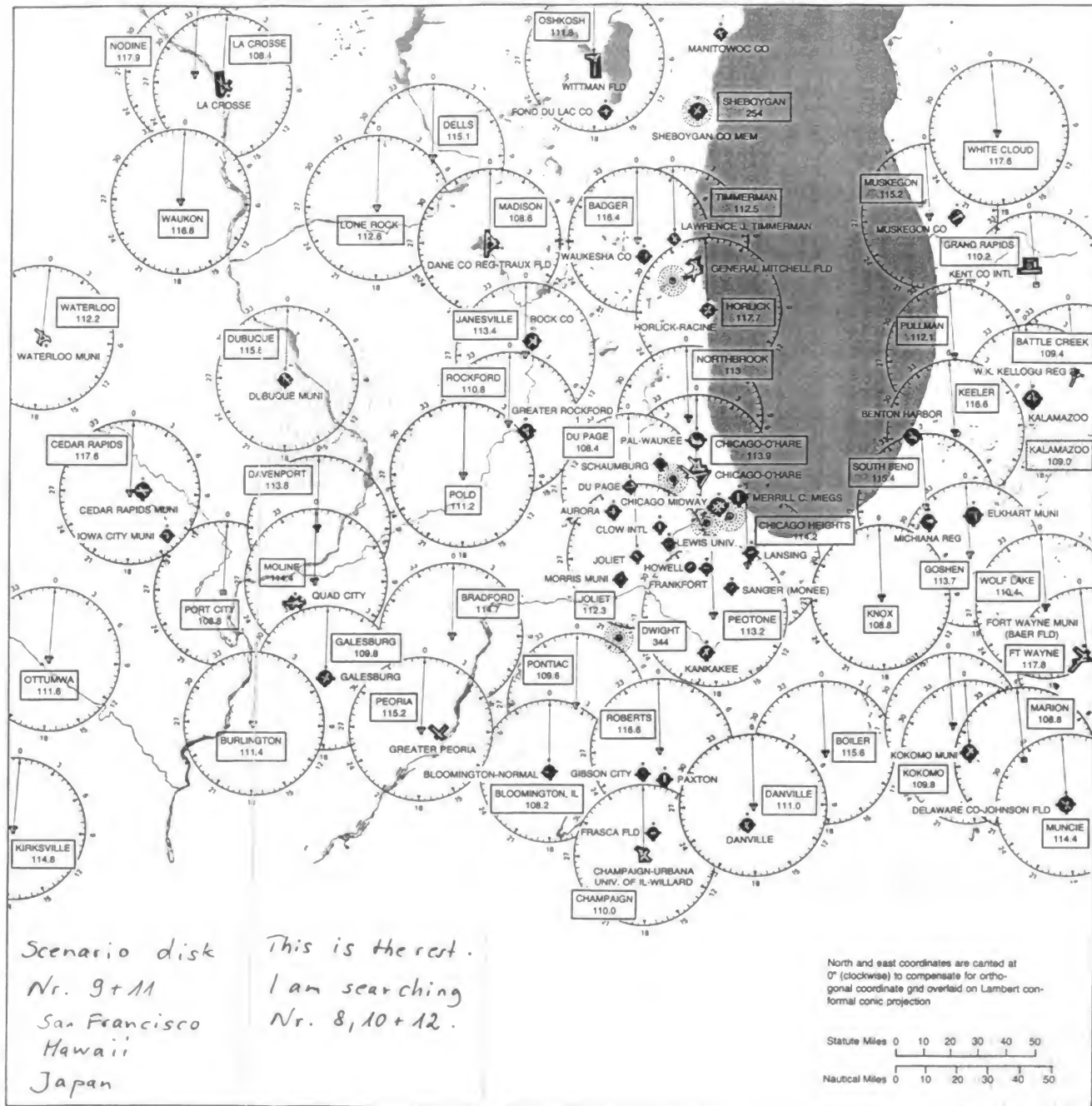
## LEGEND

- Civil-Public use airport
  - Restricted/Private-Nonpublic use airport, having emergency use or landmark value
  - Rotating light in operation, sunset to sunrise
- SANTA MONICA  
ATIS 119.15  
175-50

NAME FREQUENCY	VOR
NAME FREQUENCY	VORTAC (Distance Measuring Equipment Able)
NAME FREQUENCY	VOR/DME
NAME FREQUENCY	Non Directional Beacon

# CHICAGO AREA CHART

SCENERY DISK REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



Appleton (APL) (VOR)

16507N 18293E  
freq 116.7

Ashland - Boyd County, KY (128)

18312N 18294E  
alt 544

RWY 10-28 5605 X 100



Azaka Park (WZS) VA (NDB)

15726N 19747E  
freq 336

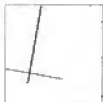
Beckley (BKW) (VOR)

15520N 18874E  
freq 117.7

Beckley, Raleigh County Memorial (BKW)

15531N 18874E  
alt 2503

RWY 1-19 6750 X 150  
RWY 10-28 5000 X 100



Bellvue (AIR) (VOR)

16500N 18883E  
freq 117.1

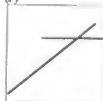
## Bluefield (BLF) (VOR)

15324N 18870E  
freq 110

## Bristol/Johnson/Kingsport, Tri-City Reg (TRI) (P)

14935N 18486E  
alt 1519

RWY 5-29 1900 X 150  
RWY 4-27 4450 X 150



## Brucy, OH (AY) (NDB)

16096N 17764E  
freq 315

## Charleston (CHV) (VOR)

15753N 18631E  
freq 117.4

## Charleston, Yeager (CRW)

15766N 18690E  
alt 981

RWY 5-23 6305 X 150  
RWY 15-33 4750 X 150



## Charlottesville-Albemarle, VA (CHV)

15784N 19764E  
alt 640

RWY 3-21 6006 X 150



## Cincinnati (LUK) OH (NDB)

16065N 17789E  
freq 335

## Cincinnati (CVG) (VOR)

15994N 17661E  
freq 117.3

## Circleville (CYO) OH (NDB)

16225N 18184E  
freq 366

## Circleville, Pickaway County Memorial (CYO)

16223N 18184E  
alt 686

RWY 1-19 4350 X 75



## Clarkburg (CKB) (VOR)

16189N 19097E  
freq 112.6

## Clarksburg / Benedum, WV (CKB) (F)

16211N 19110E  
alt. 1204

RWY 3-21 5195 X 150  
RWY 13-31 2900 X 75



## Columbus, Bolton Field (214)

16385N 18121E  
alt. 905

RWY 4-22 5205 X 100



## Columbus, Port Columbus Intl (CMH) (F)

16429N 18214E  
alt. 817

RWY 10-28 10700 X 150  
RWY 10-28 6005 X 150  
RWY 13-31 5000 X 150  
RWY 5-23 4480 X 150



## Connersville, IN (NDB)

16275N 17507E  
freq. 275

## Cumberland (CBE), MD (NDB)

16417N 19586E  
freq. 317

## Cumberland, Cumberland Muni (CBE)

16401N 19581E  
alt. 777

RWY 5-23 5055 X 150  
RWY 10-28 3805 X 150



## Danville (DAN) (VOR)

15075N 19540E  
freq. 113.1

## Danville Regional (DAN)

15078N 19540E  
alt. 571

RWY 2-20 2000 X 150  
RWY 6-24 4500 X 150  
RWY 13-31 4050 X 100



## Dayton, OH (VOR)

16425N 17753E  
freq. 114.5

## Delaney (DYQ), TN (NDB)

14777N 18326E  
freq. 263

## Dublin, New River Valley (PSK)

15270N 10054E  
alt. 2106

RWY 6-24 6200 X 150



## Galax / Hillsville, Twin County (HLX)

15103N 10019E  
alt. 2699

RWY 18-36 4200 X 60



## Elkins (EKN) (VOR)

16054N 10172E  
freq. 114.2

15091N 10082E  
freq. 110.2

## Glade Spring (GZG) VA (VOR)

## Elkins-Randolph Co, WV (EKN)

16050N 10253E  
alt. 1988

RWY 14-32 4550 X 150  
RWY 5-23 4500 X 150



## Greenville Municipal (GCY)

14797N 10351E  
alt. 1614

RWY 5-23 6300 X 100



## Falmouth, KY (VOR)

15836N 17785E  
freq. 117

## Greensboro, NC (GSO) (VOR)

14825N 10344E  
freq. 116.2

## Frankfort, KY (VOR)

15626N 17593E  
freq. 109.4

## Greensboro, Piedmont Triad Intl (GSO) (F)

14850N 10352E  
alt. 925

RWY 5-23 10000 X 150  
RWY 14-32 6885 X 150



## Henderson (HNN) (VOR)

15930N 18530E  
freq 115.9

## Holston Mtn (HMV) (VOR)

14922N 18579E  
freq 114.6

## Hot Springs, Ingalls Fld, VA (HSP) (IRM FS3 Only)

15649N 19304E  
alt 3792

RWY 6-24 5605 X 100



## Huntington, Tri-State / Walker-Long Field (HTS)

15788N 18367E  
alt 827

RWY 12-30 6510 X 150  
RWY 3-21 3005 X 60



## Huntt, WV (HT) (NDB)

15751N 18331E  
freq 226

## Indianhead (IHD) (VOR)

16533N 19367E  
freq 108.2

## Kessel (ESL), WV (VOR)

16227N 19526E  
freq 110.8

## Knoxville (TYS), TN (VOR)

14662N 18001E  
freq 116.4

## Lewisburg, Greenbriar Valley (LWB)

15589N 19118E  
alt 2303

RWY 4-22 7010 X 150



## Lexington (HYK), KY (VOR)

15546N 17763E  
freq 112.6

## Liberty (LIB), NC (VOR)

14724N 1985E  
freq 113

## Livingston (LVT) (VOR)

14937N 17555E  
freq 108.4



## London (LOZ) (VOR)

15149N 17907E  
freq. 116.1

## Louisville (ILL) KY (VOR)

15586N 17388E  
freq. 114.8

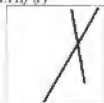
## Lynchburg (LYH) (VOR)

15372N 19541E  
freq. 109.2

## Lynchburg, Lynchburg Muni - Glenn Field (LYH) (F)

15406N 19550E  
alt. 938

RWY 3-21 5800 X 150  
RWY 17-35 3900 X 150



## Marion / Wytheville, Mountain Empire (SA1)

15142N 18832E  
alt. 2552

RWY 8-26 4500 X 75



## Martinsburg (MRB) WV (VOR)

16341N 19896E  
freq. 112.1

## Martinsville (MTV) (VOR)

15076N 19306E  
freq. 109

## Martinsville, Blue Ridge (MTV)

15076N 19304E  
alt. 928

RWY 12-30 5000 X 75



## Mcguire, OH (VOR)

16246N 17802E  
freq. 110

## Midwest (MXQ) OH (VOR)

16165N 17917E  
freq. 112.9

## Mocca, TN (TR) (NDH)

14962N 18514E  
freq. 299

## Monticello, VA (MOL) (VOR)

15655N 19554E  
freq. 114.4

## Morgantown (MGW) (VOR)

1630N 19222E  
freq. 111.6

## Morgantown Moni-Hart Field, WV (MGW)

1637N 19200E  
alt. 1246

RWY 18-36 5205 X 150  
RWY 5-23 3000 X 100



## Mount Airy - Surry County (MWK)

1498N 19124E  
alt. 1214

RWY 18-36 3905 X 75



## Newcastle (ECB) (VOR)

1563N 18253E  
freq. 110.4

## Newcomerstown (CTW), OH (VOR)

1657N 18067E  
freq. 111.8

## Orrick (MW) (NDB)

1624N 17785E  
freq. 223

## Parkersburg (PU) (VOR)

1623N 18722E  
freq. 108.6

## Parkersburg, Wood Co - Wilson Fld (PKB)

1619N 18705E  
alt. 859

RWY 3-21 6785 X 150  
RWY 10-28 4005 X 150



## Patterson (FFO), OH (VOR)

1634N 17863E  
freq. 115.2

## Pulaski (PSK) (VOR)

1524N 19043E  
freq. 116.8

## Rainelle (RNL), WV (VOR)

1562N 18973E  
freq. 116.5

## Richmond (RID), IN (VOR)

1631N 17604E  
freq. 110.6

## Rumoke (ROA), VA (VOR)

15382N 19257E  
freq. 109.4

## Rumoke Reg / Woodrum Fld (ROA)

15375N 19287E  
alt. 1178

RWY 16-34 9000 X 150  
RWY 2-20 6605 X 150  
RWY 7-25 5315 X 100



## Rosewood (ROD), OH (VOR)

16539N 17867E  
freq. 117.5

## Snowbird (SOT), TN (VOR)

14617N 18279E  
freq. 118.8

## South Boston (SBV), VA (VOR)

15133N 19646E  
freq. 110.4

## Springfield (SGH), OH (VOR)

16364N 17928E  
freq. 113.2

## Springfield-Beckley Muni, OH (SGH)

16364N 17929E  
alt. 1053

RWY 6-24 9000 X 150  
RWY 15-33 5500 X 150



## Sunne, OH (CM) (NDB)

16429N 18240E  
freq. 391

## West Jefferson, Ashtab County (NC67)

14943N 18026E  
alt. 3172

RWY 9-27 4300 X 75



## Wheeling (HLC), WV (VOR)

16615N 18958E  
freq. 112.2

## Wheeling Ohio Co (HLC)

16574N 18934E  
alt. 1197

RWY 3-21 5000 X 150  
RWY 16-34 4500 X 150



## White Sulphur Springs (SSU) (VOR)

15550N 19161E  
freq. 118.4

## Wilmington, Airborne Airpark (ILN)

16167N 17915E  
alt. 1073

RWY 4-22 9001 X 150



## Winston Salem, Smith Reynolds (INT)

14856N 19252E  
alt. 971

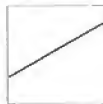
RWY 15-33 6555 X 150  
RWY 3-21 3935 X 150



## Wise, Lonesome Pine

15147N 18423E  
alt. 2680

RWY 6-24 4705 X 100



## Woodrum (ODR) (VOR)

15374N 19285E  
freq. 114.9

## Yellow Bud (XUB) OH (VOR)

16226N 18185E  
freq. 112.5

## York (YRK) KY (VOR)

15844N 18211E  
freq. 112.8

## Zanesville (ZZV) (VOR)

16437N 18531E  
freq. 111.4

# AIRPORT DIRECTORY - CINCINNATI AREA

CITY	AIRPORT	NORTH	EAST	ALT
Ashland	Boyd Co., KY (I28)	15812	18298	544
Beckley	Raleigh County Mem. (BKW)	15531	18874	2503
Bristol/Johnson/Kingsport	Tri-City Reg (TRI)	14935	18486	1519
Charleston	Yeager (CRW)	15768	18690	981
Charlottesville	Albemarle, VA (CHO)	15784	19764	840
Circleville	Pickaway County Mem. (CYO)	16223	18184	686
Clarksburg	Benedum, WV (CKB)	16211	19110	1204
Columbus	Bolton Field (214)	16385	18121	905
Columbus	Port Columbus Intl (CMH)	16429	18204	817
Cumberland	Cumberland Muni (CBE)	16401	19581	777
Danville	Danville Regional (DAN)	15078	19540	571
Dublin	New River Valley (PSK)	15270	19054	2106
Elkins	Randolph Co., WV (EKN)	16050	19253	1988
Galax/Hillsville	Twin County (HLX)	15103	19019	2699
Greenville	Greenville Muni (GCY)	14797	18351	1614
Greensboro	Piedmont Triad Intl (GSO)	14850	19352	925
Hot Springs	Ingalls Field, VA (HSP)	15649	19304	3792
Huntington	Tri-State/Walker-Long Fld. (HTS)	15738	18367	827
Lewisburg	Greenbrier Valley (LWB)	15589	19118	2303
Lynchburg	Lynchburg Muni/Glenn Fld. (LYH)	15406	19550	938
Marion/Wytheville	Mountain Empire (SA1)	15142	18832	2552
Martinsville	Blue Ridge (MTV)	15076	19304	928
Morgantown	Muni-Hart Field, WV (MGW)	16370	19200	1246
Mount Airy	Surry County (MWK)	14986	19124	1214
Parkersburg	Wood County/Wilson Fld. (PKB)	16191	18705	859
Roanoke	Reg./Woodrum Fld. (ROA)	15375	19287	1178
Springfield	Beckley Muni, OH (SGH)	16364	17929	1053
West Jefferson	Ashe County (NC67)	14943	18826	3172
Wheeling	Ohio County (HLG)	16574	18934	1197
Wilmington	Airborne Airpark (ILN)	16167	17915	1073
Winston Salem	Smith Reynolds (INT)	14856	19252	971
Wise	Lonesome Pine	15147	18423	2680

## LEGEND



Civil-Public use airport



Restricted/Private-Nonpublic use airport, having emergency use or landmark value



Rotating light in operation, sunset to sunrise

SANTA MONICA

ATIS 119.15

175-50

Airport Name

Advisory Frequency (if available)

Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

Non Directional Beacon

VOR/DME

NAME

FREQUENCY

If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

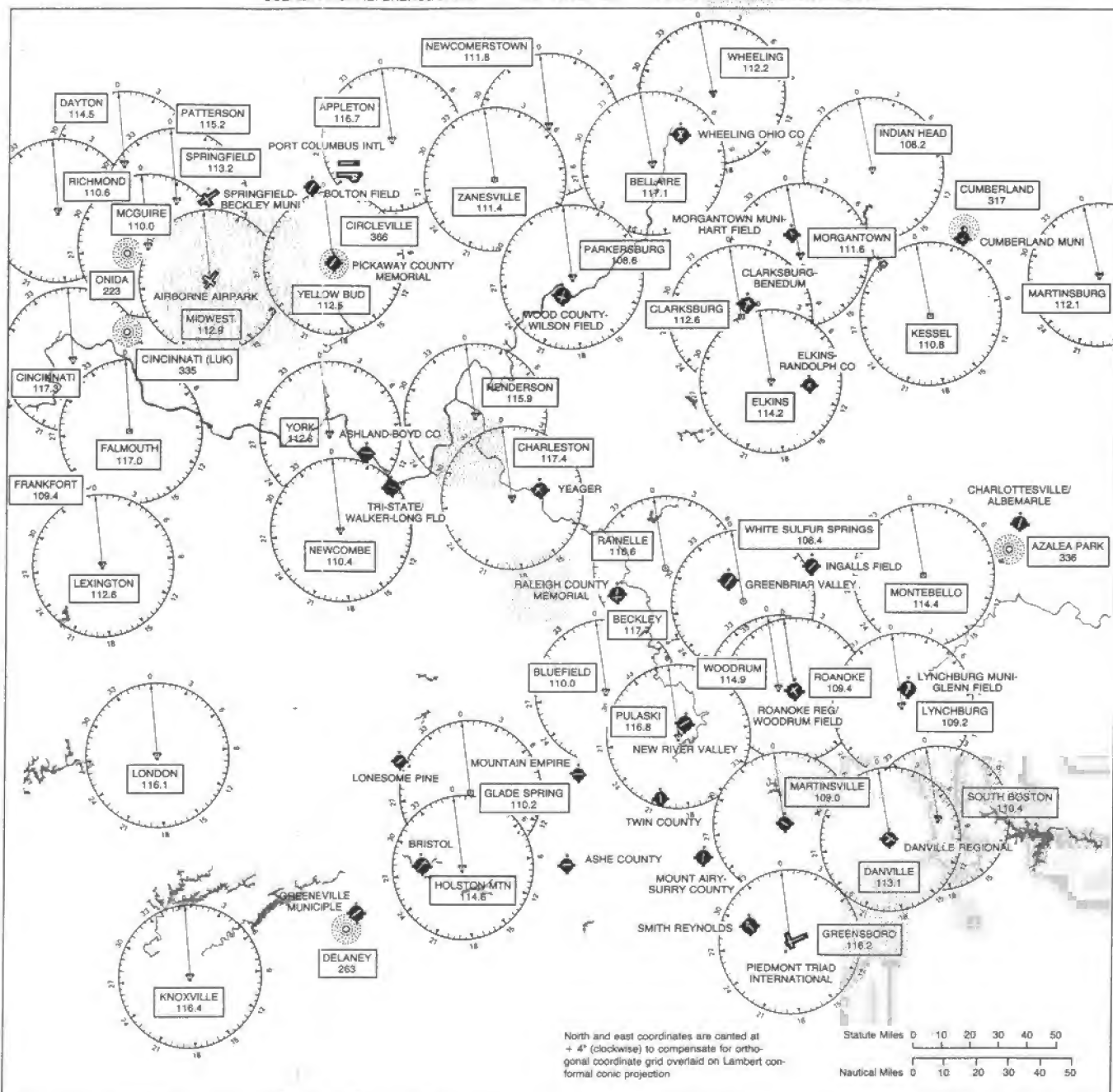
## AIRPORT NAME ABBREVIATIONS

CO	County
FLD	Field
INTL	International
MUNI	Municipal
(PVT)	Private Airport (prior permission before landing)

# CINCINNATI AREA CHART

SCENERY DISK REFERENCE CHART.

NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



## Alton/St Louis St Louis Regional (ALN)

15906N 15875E  
alt. 544

RWY 11-29 6495 X 100  
RWY 17-35 5905 X 100



## Anderson, Anderson Muni (AID)

16449N 17342E  
alt. 918

RWY 12-30 5400 X 100  
RWY 18-36 3400 X 75



## Appleton (APE) (VOR)

16507N 18283E  
freq. 116.7

## Bardonia, Samuels Fld (BRY)

15462N 17415E  
alt. 663

RWY 2-20 4005 X 75



## Bedford, Virgil I Gristan Muni (BFR)

15894N 17084E  
alt. 728

RWY 13-31 4500 X 100  
RWY 6-24 3005 X 75



## Bowling Green - Warren County (BWG)

15085N 17118E  
alt. 548

RWY 3-21 6500 X 150  
RWY 12-30 3985 X 150



## Bloomington, IL (VOR)

16593N 16242E  
freq. 108.2

## Bowman, KY (VOR)

15641N 17355E  
freq. 112.2

## Bloomington, IN (VOR)

16023N 17022E  
freq. 110.2

## Bruny, OH (AT) (NDB)

16353N 17768E  
freq. 315

## Bloomington, Monroe Co (BMG)

16022N 17021E  
alt. 846

RWY 17-35 5205 X 150  
RWY 6-24 3815 X 100



## Burlington, IA (VOR)

16709N 15604E  
freq. 111.4

## Cahokia-St Louis, St Louis Downtown - Parks (CPS)

15771N 15833E  
alt. 413

RWY 12-30 5500 X 100  
RWY 12-30 3900 X 75  
RWY 4-22 2805 X 75



## Boiler, IN (VOR)

16632N 16852E  
freq. 115.6

## Bowling Green (BWG) (VOR)

15070N 17110E  
freq. 117.9

## Camden Point, Cape Girardeau Muni (CGI)

15175N 16035E  
alt. 341

RWY 10-28 6500 X 150  
RWY 2-20 3995 X 100



## Campbell, AAF

14954N 16756E  
alt. 571

RWY 4-22 11805 X 200



## Cape Girardeau (CGI) (VOR)

15175N 16034E  
freq. 112.9

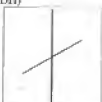
## Capital (CAP) (VOR)

16357N 16021E  
freq. 112.7

## Carbondale/Murphysboro, Southern Illinois (MDIT)

15417N 16143E  
alt. 410

RWY 13-36 5800 X 100  
RWY 6-24 4095 X 100



## Central City, KY (VOR)

15258N 16806E  
freq. 109.8

## Centralia Muni (ENL)

15738N 16195E  
alt. 535

RWY 18-36 5000 X 75  
RWY 9-27 2575 X 150



## Centralia, IL (VOR)

15691N 16177E  
freq. 115

## Champaign, IL (VOR)

16397N 16464E  
freq. 110

## Cincinnati (CVG) (VOR)

15994N 17661E  
freq. 117.3



## Cincinnati Muni Arpt Lunken Fld (LUK) (F)

16034N 17757E  
alt. 482

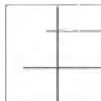
RWY 2-20 6100 X 150  
RWY 6-24 5140 X 100  
RWY 2-20 3820 X 100



## Cincinnati, Greater Cincinnati Intl (CVG) (F)

16008N 17674E  
alt. 892

RWY 18-36 9500 X 150  
RWY 9-27 7800 X 150  
RWY 9-27 5500 X 150



## Clarksville (CKV) (VOR)

14927N 16780E  
freq. 110.6

## Clarksville, Outlaw Fld (CKV)

14928N 16780E  
alt. 551

RWY 17-35 6005 X 100  
RWY 5-23 4005 X 100



## Columbus (BAK)

16081N 17260E  
alt. 656

RWY 4-22 6405 X 150  
RWY 13-31 5000 X 150



## Cornersville, IN (NDB)

16279N 17507E  
freq. 275

## Cornersville, Mettel Fld (CEV)

16279N 17509E  
alt. 866

RWY 18-36 5000 X 75



## Corning Muni (4M91)

14830N 15661E  
alt. 292

RWY 18-36 4300 X 60



## Cunningham, KY (VOR)

19062N 16292E  
freq. 113.1

## Danville, IL (VOR)

16511N 16995E  
freq. 111

## Dayton, Dayton General Airport South (MGY)

16247N 17812E  
alt. 925

RWY 2-20 5000 X 100  
RWY 9-27 2880 X 100



## Dayton, James M Cox Dayton Intl (DAY)

16378N 17806E  
alt. 961

RWY 6-24 9500 X 150  
RWY 18-36 7000 X 150  
RWY 6-24 7000 X 150



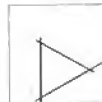
## Dayton, OH (VOR)

16427N 17731E  
freq. 114.5

## Decatur (DEC)

16210N 16267E  
alt. 679

RWY 6-24 6495 X 150  
RWY 12-30 5300 X 150  
RWY 18-36 5300 X 150



## Decatur, IL (VOR)

16267N 16276E  
freq. 117.2

## Dyersburg (DYR) (VOR)

14663N 16124E  
freq. 116.8

## Dyersburg Muni (DYR)

14654N 16089E  
alt. 338

RWY 4-22 5000 X 100  
RWY 16-34 4005 X 75



## ElTunham Co Mem (HLS)

15982N 16380E  
alt. 587

RWY 11-29 4500 X 75  
RWY 14-9 3400 X 60



## Elizabethtown (EKK)

15404N 17276E  
alt. 774

RWY 5-23 5000 X 75



## Evansville Dress Regional (EVV)

15546N 16727E  
alt. 417

RWY 4-22 9025 X 150  
RWY 18-36 5080 X 150  
RWY 9-27 3505 X 100



## Frankfort, KY (VOR)

15632N 17612E  
alt. 804

RWY 6-24 5005 X 100



## Farmington Regional (FAA)

15620N 15760E  
alt. 945

RWY 2-26 2075 X 60



## Frankfort, KY (VOR)

15632N 17610E  
freq. 109.4

## Ft Knox, Godman AAF

15491N 17259E  
alt. 754

RWY 15-33 5000 X 150  
RWY 18-36 5205 X 150



## Farmington, MO (VOR)

15378N 15807E  
freq. 115.7

## Foristell, MO (FTZ) (VOR)

15819N 15563E  
freq. 110.8

## Fort Knox, KY (VOR)

15491N 17258E  
freq. 109.6

## Galesburg, IL (VOR)

16791N 15760E  
freq. 109.8

## Gallatin, Sumner Co Regional (M33)

14832N 17130E  
alt. 584

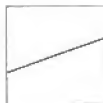
RWY 17-35 5000 X 75



## Glasgow Muni (GLW)

15119N 17276E  
alt. 715

RWY 7-25 4005 X 75



## Graham, TN (GHI) (VOR)

14578N 16752E  
freq. 111.6

## Grissum, TN (VOR)

16677N 17146E  
freq. 116.5

## Hamilton - Farfield (HAO)

16145N 17714E  
alt. 670

RWY 11-29 5440 X 80



## Hopkinsville - Christian Co (IM8)

15030N 16763E  
alt. 554

RWY 8-26 5000 X 75



## Hunt, WV (HT) (NDB)

15751N 18331E  
freq. 226

## Indianapolis Ind (IND) (F)

16273N 17126E  
alt. 797RWY 4-22 1006 X 150  
RWY 13-31 7605 X 150  
RWY 4-22 3700 X 75

## Indianapolis, IN (VOR)

16312N 17096E  
freq. 116.3

## Indianapolis, Indianapolis Terry (IS2)

16109N 17132E  
alt. 922

RWY 18-36 5165 X 75



## Indianapolis, Mount Comfort (MQJ)

16338N 17254E  
alt. 863

RWY 7-25 5900 X 100  
RWY 16-34 3905 X 75



## Jacksonville Muni (JX)

16287N 15816E  
alt. 623

RWY 13-31 5000 X 75  
RWY 4-22 3290 X 315



## Jacksonville, IL (VOR)

16284N 15816E  
freq. 108.6

## Kirkville, MO (VOR)

16472N 15051E  
freq. 114.6

## Knox, IN (VOR)

16967N 16981E  
freq. 108.8

## Kokomo, IN (VOR)

16625N 17189E  
freq. 109.8

## Lawrenceville • Vincennes Intl (LWV)

15851N 16696E  
alt. 430

RWY 9-27 5205 X 150  
RWY 18-36 5205 X 150



## Lawrenceville, IL (VOR)

15855N 16696E  
freq. 113.5

## Lebanon, Lebanon • Warren Co (168)

16190N 17804E  
alt. 889

RWY 18-36 4005 X 65



## Lexington (HYK), KY (VOR)

15546N 17763E  
freq. 112.6

## Lexington, Blue Grass (LEX) (F)

15574N 17717E  
alt. 981

RWY 4-22 7000 X 150  
RWY 8-26 3505 X 150



## Livingston (LVT) (VOR)

14941N 17555E  
freq. 108.4

## Livingston (LVT)

14862N 17506E  
alt. 1371

RWY 3-21 4005 X 75



## London (LOZ) (VOR)

15149N 17907E  
freq. 116.1

## London - Corbin Arpt - Magee Fld (LOZ)

15173N 17919E  
alt. 1214

RWY 5-23 6005 X 150



## Louisville, Bowman Fld (LOU)

15640N 17355E  
alt. 548

RWY 6-24 4310 X 80  
RWY 1-19 3380 X 100  
RWY 14-32 3535 X 80



## Louisville, KY (VOR)

15586N 17388E  
freq. 114.8

## Louisville, Standiford Fld (SDF) (F)

15618N 17331E  
alt. 495

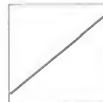
RWY 1-19 10000 X 150  
RWY 11-29 7250 X 150



## Madisonville Muni (210)

15243N 16776E  
alt. 440

RWY 5-23 5000 X 75



## Malden Muni (MAW)

14915N 15888E  
alt. 259

RWY 4-22 5000 X 100  
RWY 13-31 5000 X 80  
RWY 18-36 5000 X 100



## Marion (MWA) (VOR)

15408N 16222E  
freq. 110.4



## Marion, IN (VOR)

16617N 17301E  
freq. 108.6

## Marion, Williamson Co Regional (MWA)

15407N 16224E  
alt. 472

RWY 2-20 6500 X 150  
RWY 11-29 3800 X 100



## Mattoon (MTD) (VOR)

16157N 16463E  
freq. 112.4

## Mattoon - Charleston, Coles County Memorial (MTD)

16157N 16465E  
alt. 722

RWY 11-29 6500 X 150  
RWY 6-24 5800 X 100



## Mayfield Graves Co (M25)

14966N 16373E  
alt. 525

RWY 18-36 4625 X 100



## Mcguire, OH (VOR)

16246N 17811E  
freq. 110

## Middletown, Hook Fld Muni (MWO)

16217N 17756E  
alt. 649

RWY 5-23 6800 X 100



## Midwest, OH (VOR)

16182N 17939E  
freq. 112.9

## Mocca, TN (TR) (NDB)

14962N 18514E  
freq. 259

## Mt Vernon - Outland (MVN)

15662N 16275E  
alt. 479

RWY 5-23 6500 X 150  
RWY 15-33 3150 X 100



## Mt Vernon, IL (VOR)

15681N 16294E  
freq. 113.8

## Muncie, IN (VOR)

16512N 17412E  
freq. 114.4

## Mystic, KY (VOR)

15485N 17148E  
freq. 108.2

## Nabb, IN (VOR)

15792N 17343E  
freq. 112.4

## Nashville (JNA) (VOR)

14716N 17038E  
freq. 114.1

## Nashville, John C. Tune (JWN)

14740N 16973E  
alt. 492

RWY 1-19 5000 X 100



## Nashville, Nashville Metropolitan (JNA) (F)

14718N 17039E  
alt. 600

RWY 13-31 8505 X 150  
RWY 2-20 7705 X 150  
RWY 2-20 4305 X 150



## New Hope, KY (EWO) (VOR)

15386N 17373E  
freq. 110.8

## Ocala (OWF) (VOR)

16216N 17734E  
freq. 223

## Ottawa, IL (VOR)

16855N 15153E  
freq. 111.6

## Owensboro - Daviess Co (OWB)

15410N 16852E  
alt. 407

RWY 17-35 6500 X 150  
RWY 5-23 3700 X 100



## Owensboro, KY (OWB) (VOR)

15411N 16852E  
freq. 108.6



## Parucuh, Barkley Regional (PAH)

1511N 1630E  
alt. 410

RWY 4-22 6500 X 150  
RWY 14-32 4005 X 150



## Patterson, OH (FFO) (VOR)

16345N 17863E  
freq. 115.2

## Peoria, IL (VOR)

16676N 15965E  
freq. 115.2

## Plymouth, IL (VOR)

16937N 16618E  
freq. 113.2

## Perryville (K02)

15455N 15936E  
alt. 371

RWY 1-19 5500 X 100



## Pucket City, IN (PXV) (VOR)

15491N 16648E  
freq. 113.3

## Pontiac, IL (VOR)

16742N 16510E  
freq. 109.6

## Poplar Bluff, Earl Fields Mem (POF)

14960N 15774E  
alt. 331

RWY 18-36 4005 X 100



## Richmond (RID) (VOR)

16007N 17605E  
freq. 110.6

## Richmond Muni (RID)

16309N 17604E  
alt. 1141

RWY 6-24 5205 X 150  
RWY 15-33 5005 X 150  
RWY 10-28 3615 X 150



## Roberts, IL (VOR)

16637N 16900E  
freq. 116.3

## Robinson Muni (RSV)

15963N 16680E  
alt. 462

RWY 9-27 5100 X 75  
RWY 17-35 3400 X 75



## Robinson, IL (VOR)

15963N 16679E  
freq. 108.4

## Rosewood, OH (VOR)

16549N 17842E  
freq. 117.5

## Samsville, IL (VOR)

15732N 16529E  
freq. 116.6

## Scott AFB

15755N 15940E  
alt. 453

RWY 14-32 7040 X 150



## Seymour Johnson Muni (SEJ)

15963N 17259E  
alt. 534

RWY 4-22 5500 X 150  
RWY 13-31 5500 X 150  
RWY 18-36 1000 X 150



## Shawville, TN (VOR)

16392N 17280E  
freq. 112

## Sikeston Memorial Muni (SRK)

15008N 16037E  
alt. 315

RWY 2-20 5500 X 100



## Smyrna (MQY)

14673N 17096E  
alt. 544

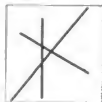
RWY 14-32 8035 X 150  
RWY 1-19 5545 X 150



## Springfield, Capital (SPI)

16314N 16002E  
alt. 597

RWY 4-22 800 X 150  
RWY 12-30 5300 X 150  
RWY 18-36 5300 X 150



## Springfield, OH (VOR)

16358N 17916E  
freq. 113.2

## Springfield-Beckley Muni, OH (SG11)

16364N 17929E  
alt. 1073

RWY 7-25 500 X 75  
RWY 4-22 900 X 150



## St. Louis, Lambert - St. Louis Intl (STL) (F)

15844N 15773E  
alt. 604

RWY 12-30 11000 X 200  
RWY 12-30 9000 X 150  
RWY 6-24 7605 X 150  
RWY 17-35 3015 X 75



## St. Louis, Spirit of St. Louis (SLS)

2881N 15624E  
alt. 452

RWY 8-26 7000 X 150  
RWY 8-28 3000 X 75



## St. Louis (STL) (VOR)

15876N 15728E  
freq. 117.7

## Spring, OH (SG11) (NDB)

16402N 18242E  
freq. 394

## Terre Haute, Holmes Regional (TUF)

16152N 16791E  
alt. 584

RWY 5-23 9000 X 150  
RWY 13-31 5300 X 150



## Terre Haute, IN (VOR)

16168N 16809E  
freq. 115.3

## Troy, IL (VOR)

15840N 15920E  
freq. 116

## Union City, Everett - Stewart (UCY)

14817N 16237E  
alt. 341

RWY 1-19 5000 X 100



## Vandalia (VLA) (VOR)

15992N 16173E  
freq. 114.3

## Walnut Ridge (ARG) (VOR)

14706N 15554E  
freq. 114.5

## Walnut Ridge Regional (ARG)

14711N 15563E  
alt. 276

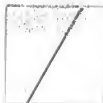
RWY 4-22 5000 X 150  
RWY 13-31 5000 X 150  
RWY 17-35 5000 X 150



## Waverly, Humphreys Co (0MS)

14708N 16671E  
alt. 745

RWY 3-21 4005 X 75



## Wolf Lake, IN (VOR)

16946N 17351E  
freq. 110.4

## Wright-Patterson AFB

16349N 17867E  
alt. 823

RWY 5-23 12005 X 305  
RWY 5-23 4750 X 150



# AIRPORT DIRECTORY - ST LOUIS AREA CHART

# ST LOUIS AREA CHART

SCENERY DISK REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.

CITY	AIRPORT	NORTH	EAST	ALT. <small>FT. MSL</small>	ILS	ATIS	VASI
Alton/St. Louis	St. Louis Regional (ALN)	15605	15675	544			
Anderson	Anderson Muni (AID)	16449	17342	918			
Bardonia	Samuels Fld (BRY)	15462	17419	663			
Bedford	Virgil I. Gissom Muni (BFR)	15684	17064	726			
Belleville	Scott AFB	15755	15940	453			
Bloomington	Monroe Co. (BMG)	16022	17021	846			
Bowling Green	Warren County (BWG)	15085	17118	548			
Cahokia-St. Louis	St. Louis Downtown - Parks (CPS)	15771	15833	413			
Camden Point	Cape Girardeau Muni (CGI)	15179	16053	341			
Campbell	Campbell AAF	14954	16756	571			
Carbondale	Southern Illinois (MDH)	15417	16143	410			
Marionville	Centralia Muni (ENL)	15738	16195	535			
Cincinnati	Cincinnati Muni Arpt	16034	17757	482	110.9/20L	2R,20L,20R,6,24	
Cincinnati	Greater Cincinnati Intl (CVG)	16008	17674	892	111.9/9R	135.3 27R,27L,18	
Clarksville	Outlaw Fld (CKV)	14928	16780	501			
Connersville	Mental Field (CEV)	16279	17509	866			
Corning	Corning Muni (4M8)	14830	15661	292			
Dayton	Dayton General Airt South (MGY)	16247	17812	925			
Dayton	James M. Cox Dayton Intl (DAY)	16376	17905	961			
Decatur	Decatur (DEC)	16910	16267	679			
Dyersburg	Dyersburg Muni (DYR)	14654	16089	338			
Effingham	Effingham Co Mem. (1H2)	15982	16381	587			
Elizabethtown	Elizabethtown (EZO)	15404	17276	774			
Evansville	Evansville Deuss Regional (EVV)	15546	16727	417			
Farmington	Farmington Regional (FAM)	15410	15744	845			
Frankfort	Capital City (FFT)	15532	17612	804			
Fl. Knox	Godman AAF	15491	17259	754			
Gallatin	Sumner Co Regional (M33)	14832	17130	584			
Glasgow	Glasgow Muni (GL3W)	15119	17276	715			
Hamilton	Farfield (H40)	15145	17714	630			
Hopkinsville	Christian County (1M8)	15030	16783	554			
Indianapolis	Indianapolis Intl (IND)	16273	17126	797	109.3/4L	125.35 13	
Indianapolis	Indianapolis Terry (152)	15409	17132	925			
Indianapolis	Mount Comfort (MDJ)	16333	17254	863			
Jacksonville	Jacksonville Muni (1JX)	15267	15818	623			
Lawrenceville	Vincennes Intl (LWV)	15551	16696	430			
Lebanon	Lebanon - Warren Co. (388)	16190	17804	889			
Lexington	Blue Grass (LEX)	15574	17717	981	110.1	126.3 4.22	
Livingston	Livingston (LTV)	14862	17506	1371			
London	Corbin Arpt-Magee Fld (LOZ)	15173	17919	1214			
Louisville	Bowman Fld (LOU)	15640	17355	548			
Louisville	Standford Fld (SDP)	15618	17331	485	110.3/1	118.15 19	
Madisonville	Madisonville Muni (2IO)	15243	16776	440			
Malden	Malden Muni (MAW)	14915	15888	259			
Marion	Williamson Co Regional (MWA)	15467	16224	472			
Mattoon	Coles Co Mem. (MTO)	16157	16465	722			
Charleston	Mayfield Graves Co. (M25)	14986	16373	525			
Midwest	Hook Fld Muni (MW0)	16217	17756	949			
Mt Vernon	Outland (MVB)	15662	16275	479			
Nashville	John C. Tune (JWN)	14740	16972	492	109.9/2L	120.0 13.20R,2R,20L	
Nashville	Nashville Metropolitan (BNA)	14718	17039	800			
Owensboro	Daviess Co. (OWB)	15410	16852	407			
Paducah	Barkley Regional (PAH)	15111	16307	410			
Perryville	Perryville (KO2)	15455	15936	371			
Poplar Bluff	Earl Fields Mem. (POF)	14990	15774	331			
Richmond	Richmond Muni (RID)	16309	17604	1141			
Robinson	Robinson Muni (RSV)	15963	16680	482			
Seymour	Freeman Muni (SER)	15937	17259	584			
Sikeyton	Memorial Muni (SIK)	15038	16037	315			
Smyrna	Smyrna (MGY)	14673	17096	544			
Springfield	Capital (SPI)	16314	16002	597			
Springfield	Beckley Muni (SGH)	16364	17929	1073			
St. Louis	Lambert-St. Louis Intl (STL)	15844	15773	604	111.3/30R	12L,30R	
St. Louis	Spirit of St. Louis (SLS)	15911	15574	462			
Terra Haute	Hulman Regional (HUP)	16152	16791	584			
Union City	Everett - Stewart (UCY)	14817	16237	341			
Walnut Ridge	Walnut Ridge Regional (ARG)	14711	15563	278			
Waverly	Humphreys Co. (OM5)	14708	16671	745			
Wright-Patterson	Wright-Patterson AFB	16348	17867	823			

## LEGEND



Civil-Public use airport

⊗

Restricted/Private-Nonpublic use airport, having emergency use or landmark value

★

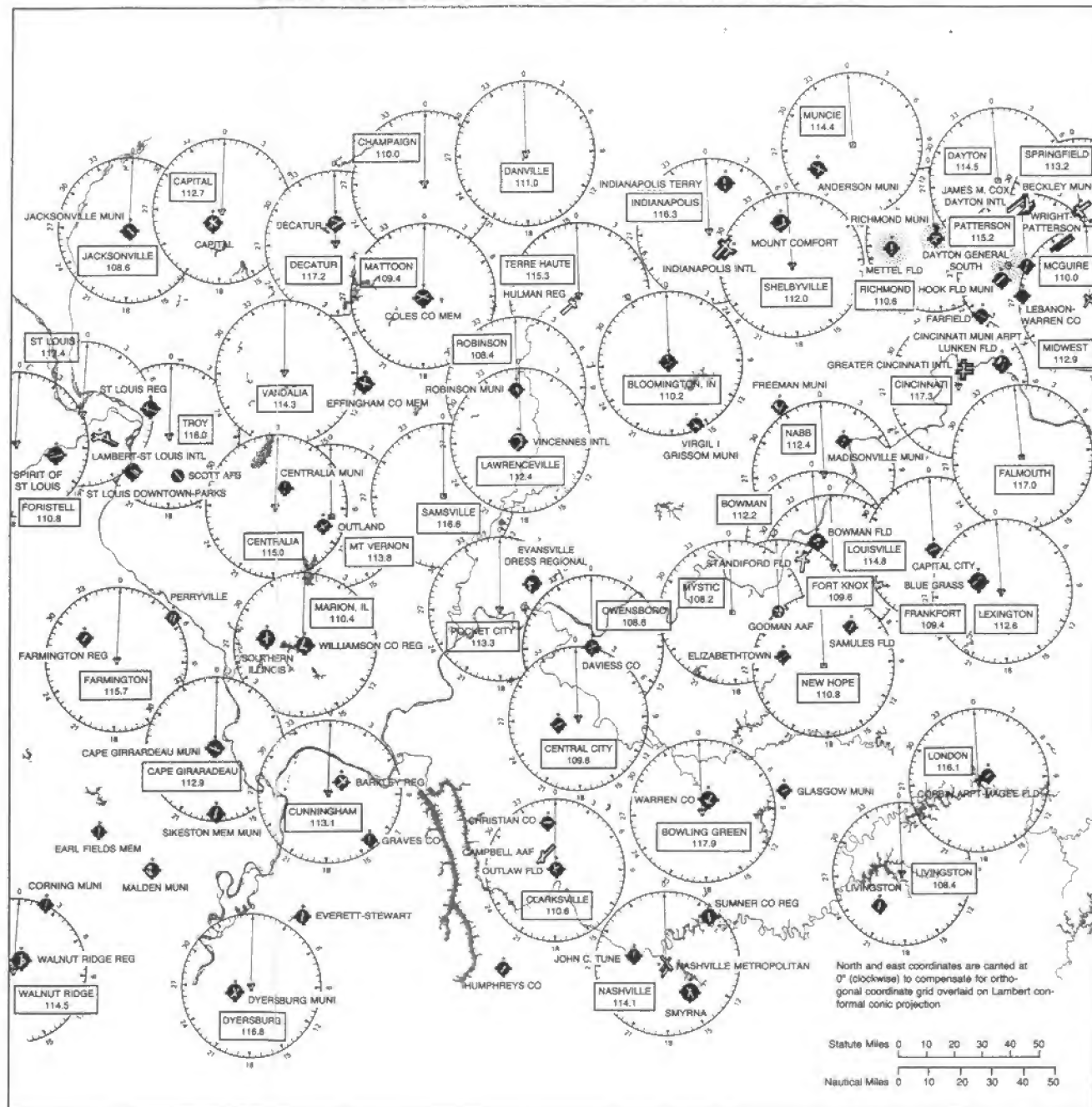
Rotating light in operation, sunset to sunrise

SANTA MONICA  
ATIS 119.15  
175-50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR



## Akron (VOR)

1698N 18742E  
freq 114.4

## Akron, OH Akron Fulton Intl

1693N 1861E  
alt 1069

RWY 7-25 6396 X 150  
RWY 1-19 2335 X 98



## Akron, OH Akron-Canton Regional

1680N 18672E  
alt 1227

RWY 1-19 6395 X 150  
RWY 14-32 5602 X 150  
RWY 5-23 5602 X 150



## Alma, MI Gratiot

17845N 17561E  
alt 754

RWY 9-27 4998 X 72  
RWY 18-36 3211 X 72



## Alpena (VOR)

18642N 1787E  
freq 106.8

## Appleton (VOR)

16516N 18328E  
freq. 116.7

## Ash, Ont. (VOR)

17960N 8226E  
freq. 115

## Ashtabula, PA

Ashtabula

17274N 18879E  
alt. 922

RWY 8-26 5202 X 98



## Au Sable (VOR)

18371N 17948E  
freq. 116.1

## Bad Axe, MI

Huron Co.

18079N 1882E  
alt. 764

RWY 3-21 3503 X 72



## Beaver Falls, PA

Beaver County

16830N 18021E  
alt. 1253

RWY 10-28 4500 X 98



## Bellaire (VOR)

16507N 18915E  
freq. 117.1

## Bradford (VOR)

17349N 19547E  
freq. 116.6

## Bradford, PA

Bradford Regional

17357N 18638E  
alt. 2142

RWY 14-32 6500 X 150  
RWY 5-23 4500 X 98



## Brantford, ONT

## Brantford

17870N 18931E  
alt. 813

RWY 5-23 4998 X 98  
RWY 11-29 2997 X 98  
RWY 11-29 2997 X 98  
RWY 17-35 2997 X 98  
RWY 17-35 2997 X 98  
RWY 5-23 2459 X 98



## Bryan, OH

## William Co.

17046N 17660E  
alt. 731

RWY 7-25 5005 X 72



## Buffalo (VOR)

17809N 19478E  
freq. 116.4

## Buffalo, NY Greater Buffalo Intl

17841N 19450E  
alt. 725

RWY 5-23 8101 X 150  
RWY 14-32 5379 X 150



## Carlisle, PA

## Carlisle

16723N 20104E  
alt. 515

RWY 10-28 4008 X 39



## Centralia, ONT

## Huron Airpark

17897N 18558E  
alt. 823

RWY 10-28 5011 X 150  
RWY 16-34 4401 X 150  
RWY 4-22 3201 X 150



## Clarion (VOR)

17043N 19309E  
freq. 112.9

## Cleveland, OH

## Burke Lakefront

17133N 18571E  
alt. 584

RWY 6-24 6199 X 150  
RWY 6-24 5202 X 98



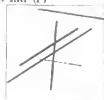


## Cleveland, OH

17078N 18518E  
alt. 790

RWY 10-28 6015 X 150  
RWY 10-28 3785 X 72  
RWY 6-24 6245 X 196  
RWY 6-24 9000 X 150  
RWY 0-18 6409 X 150

## Cleveland Hopkins Intl (F)



## Coshocton, OH

16609N 18558E  
alt. 977

RWY 4-22 4113 X 72

## Richard Downing



## Cleveland, OH

17159N 18633E  
alt. 879

RWY 5-23 5103 X 98

## Cuyahoga County



## Detroit, MI

## Detroit City

17485N 18115E  
alt. 626

RWY 15-33 5090 X 98  
RWY 7-25 4027 X 98



## Detroit, MI

## Detroit Metro Wayne Co.

17396N 18013E  
alt. 640

RWY 3-21 10502 X 196  
RWY 3-21 9997 X 150  
RWY 9-27 8998 X 196  
RWY 3-21 8501 X 196



## Columbus, OH

## Columbus Intl

16441N 18229E  
alt. 813

RWY 10-28 6002 X 150  
RWY 10-28 10699 X 150  
RWY 13-31 4998 X 150  
RWY 5-23 4480 X 150



# Detroit, MI Willow Run

1738N 17954E  
alt. 715

RWY 5-23 7524 X 150  
RWY 5-23 6688 X 157  
RWY 9-27 7294 X 157  
RWY 9-27 6514 X 157  
RWY 14-32 6914 X 157



## Dryer (VOR)

17049N 18423E  
freq. 113.6

# Du Bois, PA Du Bois-Jefferson County

17079N 19437E  
alt. 1817

RWY 7-25 5503 X 98



# Dunkirk, NY Dunkirk Muni

17630N 19000E  
alt. 692

RWY 6-24 4998 X 98  
RWY 15-33 4101 X 98



# Elmira (VOR)

17548N 20039E  
freq. 113.7

# Elmira, NY Corning Regional

17583N 20081E  
alt. 954

RWY 6-24 6999 X 150  
RWY 10-28 5195 X 150



# Erie (VOR)

17387N 18694E  
freq. 110.8

# Erie, PA Erie Intl

17422N 19030E  
alt. 731

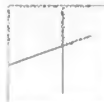
RWY 6-24 6500 X 150  
RWY 10-28 3601 X 150  
RWY 2-20 3529 X 150



# Findlay, OH Findlay

16863N 17442E  
alt. 813

RWY 7-25 4002 X 98  
RWY 18-36 4002 X 98



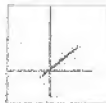
## Flint (VOR)

17308N 17867E  
freq. 116.9

## Flint, MI Bishop

17307N 17864E  
alt. 781

RWY 18-36 7845 X 150  
RWY 9-27 7096 X 150  
RWY 5-23 4290 X 150



## Franklin, PA Chess-Lamberton

17124N 19165E  
alt. 1523

RWY 2-20 5302 X 150  
RWY 11-29 3699 X 58



## FL Wayne, IN (VOR)

16821N 17445E  
freq. 117.8

## Gaylord (VOR)

18996N 17532E  
freq. 109.2

## Geneseo (VOR)

17836N 19771E  
freq. 106.2

## Gladwin, MI Gladwin

18133N 17640E  
alt. 777

RWY 9-27 4696 X 72



## Goderich, ONT Goderich

18001N 18479E  
alt. 702

RWY 10-28 5162 X 72



## Hamilton, ONT Hamilton Civic

17864N 19091E  
alt. 781

RWY 12-30 5188 X 150  
RWY 12-30 8003 X 156  
RWY 6-24 6002 X 150



## Harrisburg (VOR)

16754N 20152E  
freq. 112.5

## Houghton Lake (VOR)

18311N 17555E  
freq. 111.6

## Jackson, MI Jackson County Reynolds

17391N 17654E  
alt. 1000RWY 6-24 5346 X 150  
RWY 14-32 3503 X 98

## Jamestown, NY

## Chautauqua County

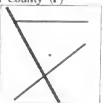
17484N 19321E  
alt. 1725RWY 7-25 5300 X 98  
RWY 13-31 4500 X 98

## Johnstown (VOR)

16710N 19552E  
freq. 113

## Johnstown, PA

## Johnstown-Cambria County (F)

16711N 19551E  
alt. 2283RWY 15-33 5484 X 150  
RWY 5-23 4467 X 98  
RWY 9-27 3693 X 98

## Kleinburg (VOR)

18235N 19108E  
freq. 114.5

## Lansing (VOR)

17584N 17569E  
freq. 110.8

## Lansing, MI

## Capital City

17614N 17608E  
alt. 859RWY 10-28 7248 X 150  
RWY 6-24 4998 X 118  
RWY 10-28 3601 X 72  
RWY 14-32 3299 X 72

## Latrobe, PA

## Westmoreland County

16668N 19367E  
alt. 1161RWY 5-23 5503 X 98  
RWY 3-21 3594 X 72

## Lima, OH

## Lima Allen Co.

16728N 17833E  
alt. 977RWY 9-27 5149 X 150  
RWY 14-32 3995 X 150

London, ONT      London

17802N    18883E  
alt. 912RWY 15-33      8796 X 196  
RWY 9-27      6297 X 196  
RWY 5-23      3175 X 150

London, Ont. (VOR)

17801N    18883E  
freq.    117.2

Mansfield, OH

Mansfield Lahm Muni.

16811N    18321E  
alt. 1296RWY 14-32      9000 X 150  
RWY 5-23      6796 X 150

Marquette, MI      Marquette

17875N    18064E  
alt. 895RWY 9-27      3798 X 72  
RWY 1-19      3503 X 72

Meadville, PA

Port Meadville

17227N    18041E  
alt. 1404

RWY 7-25      4099 X 72



Midland (VOR)

18517N    19056E  
freq.    112.8

Montour (VOR)

16735N    19800E  
freq.    112

Mt. Pleasant, MI

Mt. Pleasant

17975N    17536E  
alt. 754

RWY 9-27      4988 X 98



Niagara Falls, NY

Niagara Falls Intl

17916N    19374E  
alt. 590RWY 10-28      9124 X 150  
RWY 10-28      3975 X 72  
RWY 6-24      9161 X 150

## Oshawa, ONT Oshawa

18256N 19351E  
alt. 459RWY 8-26 2650 X 150  
RWY 12-30 3476 X 150  
RWY 4-22 2669 X 150

## Peck (VOR)

17855N 18182E  
freq. 114

## Phillipsburgh, PA Mid-State

16980N 19769E  
alt. 1948RWY 16-34 5713 X 98  
RWY 6-24 5005 X 98

## Phillipsburg (VOR)

17001N 19795E  
freq. 115.5

## Pittsburgh, PA Allegheny County

16684N 19195E  
alt. 1253RWY 10-28 6500 X 150  
RWY 13-31 3824 X 98  
RWY 5-23 2532 X 98

## Pittsburgh, PA

16679N 19106E  
alt. 1210

RWY 13-31 5011 X 72



## Pittsburgh, PA

16733N 19042E  
alt. 1238RWY 8-23 12512 X 150  
RWY 10-28 11449 X 196  
RWY 10-28 8620 X 150  
RWY 14-32 8076 X 150

## Greater Pittsburgh Intl (F)

## Pontiac, MI

17587N 17677E  
alt. 985RWY 4-22 4779 X 150  
RWY 2-20 3247 X 72  
RWY 4-22 2053 X 72  
RWY 18-36 1843 X 52

## Oakland-Pontiac



## Port Huron, MI

17715N 18251E  
alt. 649RWY 4-22 5103 X 98  
RWY 10-28 2445 X 72

## St. Clair Co. Intl.



## Portland, IN      Portland Muni.

16601N 17522E  
alt. 925

RWY 9-27      4001 X 72



## Rochester, NY

## Rochester-Monroe County (F)

17960N 19774E  
alt. 558RWY 4-22      8003 X 150  
RWY 10-28      5497 X 150  
RWY 7-25      4401 X 150

## Roxwood (VOR)

16543N 17839E  
freq. 117.5

## Saginaw (VOR)

17946N 17747E  
freq. 112.9

## Saginaw, MI      Browne

17906N 17819E  
alt. 600RWY 9-27      3503 X 72  
RWY 5-23      3102 X 59

## Saginaw, MI      Tri City

17948N 17747E  
alt. 609RWY 5-23      8003 X 150  
RWY 14-32      5503 X 150

## Salem (VOR)

17472N 17929E  
freq. 114.3

## Sarnia, ONT      Sarnia

17756N 18320E  
alt. 594RWY 14-32      5097 X 98  
RWY 5-23      2991 X 150

## Schwaig, MI

## Schwaig

18042N 17934E  
alt. 584

RWY 18-36      2177 X 52



## St. Catharines, ONT

## St. Catharines

17936N 19301E  
alt. 321

RWY 6-24 4928 X 150  
RWY 1-19 2400 X 72  
RWY 11-29 2000 X 72



## Tiverton (VOR)

16662N 18466E  
freq. 116.5

## Toledo, OH Toledo Express (F)

17109N 17882E  
alt. 686

RWY 7-25 8698 X 150  
RWY 16-34 5595 X 150



## Toronto (VOR)

18126N 19127E  
freq. 113.3

## Toronto, ONT

## Buttonville

18216N 19208E  
alt. 649

RWY 15-33 3752 X 98  
RWY 3-21 2578 X 78



## Toronto, ONT

## Downsview

18865N 19183E  
alt. 619

RWY 15-33 6000 X 196  
RWY 9-27 3161 X 150



## Toronto, ONT

## Toronto Island

18116N 19208E  
alt. 253

RWY 8-26 4001 X 150  
RWY 6-24 2907 X 150  
RWY 15-33 2907 X 150



## Versailles, OH

## Darke County

16498N 17679E  
alt. 1007

RWY 9-27 3803 X 72



## Waterloo, ONT

## Waterloo-Wellington

18012N 18910E  
alt. 3040

RWY 7-25 5302 X 150  
RWY 14-32 4099 X 150





## Waterville (VOR)

17054N 17941E  
freq. 113.1

## Wellboro, PA

## Grand Canyon State

17377N 19441E  
alt. 1899

RWY 15-25 309 X 72



## Wellsville, NY

## Wellsville-Tarantone

17514N 19728E  
alt. 2122

RWY 30-28 400 X 72



## Weston, WV

## Wheeling Ohio County

16556N 18963E  
alt. 1197

RWY 3-21 4998 X 150  
RWY 16-34 4493 X 150  
RWY 9-27 3220 X 98



## Warton (VOR)

18551N 18647E  
freq. 117.7

## Williamsport, PA

## Williamsport-Lycoming County

17187N 20124E  
alt. 528

RWY 9-27 6448 X 150  
RWY 15-33 3503 X 98  
RWY 12-30 4277 X 150



## Willoughby, OH

## Lost Nation

17214N 18657E  
alt. 626

RWY 9-27 4998 X 98  
RWY 5-23 4867 X 98



## Windsor (VOR)

17419N 18176E  
freq. 113.5

## Youngstown (VOR)

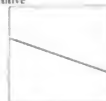
17082N 18006E  
freq. 109

## Youngstown, OH

## Youngstown Executive

16963N 18968E  
alt. 997

RWY 11-29 4172 X 59



Youngstown, OH

17050N 18905E

alt 1197

RWY 14-32

RWY 5-23

RWY 1-19

Youngstown Muni.

7491 X 150

4985 X 150

3719 X 98



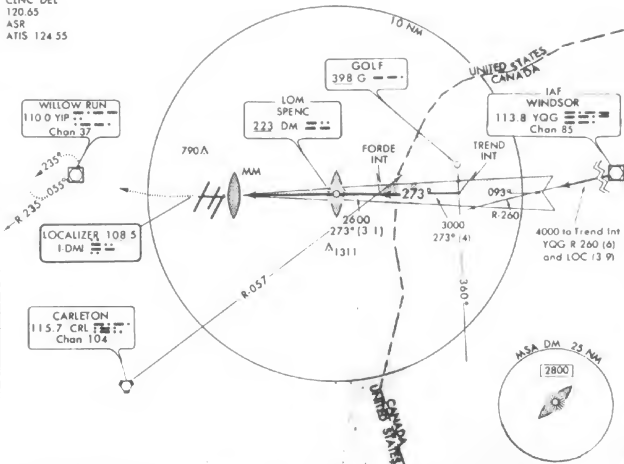
Amidst

ILS RWY 27

DETROIT METROPOLITAN WAYNE COUNTY (DTW)  
AL-119 (FAA) DETROIT, MICHIGAN

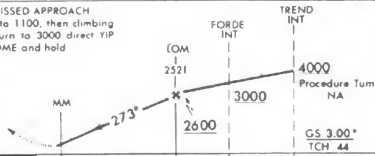
DETROIT APP CON  
124 05 363 2  
METRO TOWER  
118 4 287.1  
GND CON  
121 8  
CLNC DEL  
120.65  
ASR  
ATIS 124 55

A 1749



### MISSED APPROACH

Climb to 1100, then climbing  
right turn to 3000 direct YIP  
VOR, DME and hold



	0.5		5.2 MM		3.1 MM		4 MM	
CATEGORY	A		B		C		D	
S-LS 27	835-1/2 200 (200-1/2)							
S-LOC 27	980-1/2 345 (400-1/2)						980-3/4 345 (400-3/4)	
CIRCLING	1100-1 461 (500-1)				1100-1 1/2 461 (500-1 1/2)		1200-2 561 (600-2)	

Cat D S-LOC visibility increased 1/2 mile for inoperative MM



ELEV 639

REIL Rwys 3C, 9 and 21C  
TDZ/CL Rwys 3L and 3R  
RAIL Rwy 21C  
HIRL all Rwys 662



FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min Sec	5.42	3.48	2.51	2.17	1.54

## ILS RWY 27

42°13'N - 83°21'W

DETROIT METROPOLITAN WAYNE COUNTY (DTW)

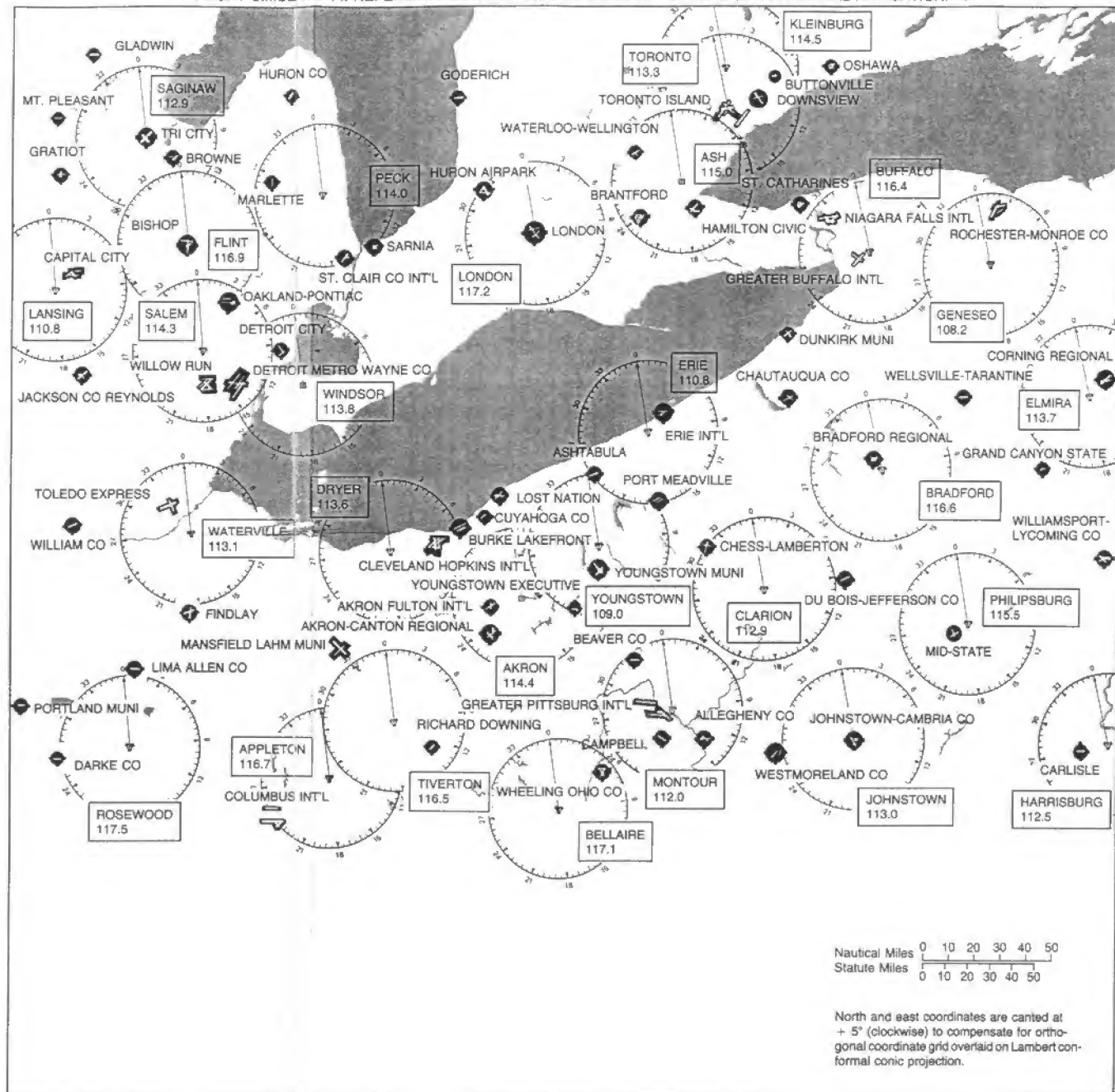
DETROIT, MICHIGAN

# AIRPORT DIRECTORY - DETROIT AREA

CITY	AIRPORT	NORTH	EAST	ALT. F (FMS)	ILS (RAY/FREQ)
Akron, OH	Akron Fulton Intl	16931	18661	1089	
Akron, OH	Akron-Canton Regional	16880	18672	1227	
Alma, MI	Gratiot	17845	17560	754	
Ashtabula, PA	Ashtabula	17274	18879	922	
Bad Axe, MI	Huron Co	18079	18082	784	
Beaver Falls, PA	Beaver Co	16850	19021	1253	
Bradford, PA	Bradford Regional	17357	19538	2142	
Brantford, Ont.	Brantford	17870	18931	813	
Bryan, OH	William Co	17046	17860	731	
Buffalo, NY	Greater Buffalo Int'l	17841	19450	725	
Carlisle, PA	Carlisle	16723	20104	515	
Centralia, Ont.	Huron Airpark	17897	18558	823	
Cleveland, OH	Burke Lakefront	17133	18571	584	
Cleveland, OH	Cleveland Hopkins Intl	17078	18518	790	
Cleveland, OH	Cuyahoga Co	17159	18633	879	
Columbus, OH	Columbus Intl	16441	18229	813	
Coshocton, OH	Richard Downing	16609	18558	977	
Detroit, MI	Detroit City	17485	18115	626	
Detroit, MI	Detroit Metro Wayne Co	17396	18013	640	27/108.5
ATIS 124.55					
Detroit, MI	Willow Run	17398	17954	715	
Du Bois, PA	Du Bois-Jefferson Co	17079	19487	1817	
Dunkirk, NY	Dunkirk Muni	17630	19300	692	
Elmira, NY	Corning Regional	17583	20081	954	
Erie, PA	Erie Intl	17422	19030	731	
Findlay, OH	Findlay	16863	17942	813	
Flint, MI	Bishop	17707	17864	781	
Franklin, PA	Chess-Lamberton	17129	19165	1528	
Gladwin, MI	Gladwin	18133	17610	777	
Goderich, Ont.	Goderich	18101	18479	702	
Hamilton, Ont.	Hamilton Civic	17894	19060	781	
Jackson, MI	Jackson Co. Reynolds	17391	17654	1000	
Jamestown, NY	Chautauque Co	17484	19321	1725	
Johnstown, PA	Johnstown-Cambria Co	16711	19551	2283	
Lansing, MI	Capital City	17614	17608	859	
Latrobe, PA	Westmoreland Co	16668	19367	1161	
Lima, OH	Lima Allen Co	16728	17833	977	
London, Ont.	London	17802	18683	912	
Mansfield, OH	Mansfield Lahm Muni	16811	18321	1296	
Marlette, MI	Marlette	17875	18064	895	
Meadville, PA	Port Meadville	17227	19041	1404	
Mt. Pleasant, MI	Mt. Pleasant	17975	17536	754	
Niagara Falls, NY	Niagara Falls Int'l	17905	19374	590	
Oshawa, Ont.	Oshawa	18256	19351	459	
Philipsburgh, PA	Mid-State	16980	19769	1948	
Pittsburgh, PA	Allegheny Co	16684	19195	1253	
Pittsburgh, PA	Campbell	16679	19106	1200	
Pittsburgh, PA	Greater Pittsburgh Intl	16733	19094	1204	28/108.9
ATIS 127.25					
Pontiac, MI	Oakland-Pontiac	17587	17979	981	
Port Huron, MI	St. Clair Co. Intl	17715	18251	649	
Portland, IN	Portland Muni	16601	17522	925	
Rochester, NY	Rochester-Monroe Co	17960	19774	558	
Saginaw, MI	Tri City	17948	17747	669	
Samia, Ont.	Samia	17756	18320	594	
Sebawaing, MI	Sebawaing	18042	17934	584	
St. Catharines, Ont.	St. Catharines	17936	19301	321	
Toledo, OH	Toledo Express	17109	17882	686	
Toronto, Ont.	Buttonville	18216	19208	253	
Toronto, Ont.	Downsview	18165	19183	649	
Toronto, Ont.	Toronto Island	18116	19208	253	
Versailles, OH	Darke Co	16498	17679	1007	
Waterloo, Ont.	Waterloo-Wellington	18012	18910	1040	
Wellisboro, PA	Grand Canyon State	17377	19941	1899	
Wellsville, NY	Wellsville-Tarantine	17514	19728	2122	
Weston, WV	Wheeling Ohio Co	16586	18963	1197	
Williamsport, PA	Wmsport-Lycoming Co	17187	20124	528	
Willoughby, OH	Lost Nation	17214	18657	626	
Youngstown, OH	Youngstown Executive	16963	18868	997	
Youngstown, OH	Youngstown Muni	17050	18908	1197	

# DETROIT AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



## Alpena (VOR)

18542N 17887E  
freq 108.8

## Alpena, MI

18539N 17885E  
alt 689

RWY 1-19	9000 X 150
RWY 7-25	5031 X 150
RWY 13-31	5031 X 150

## Phelps Collins



## Ash, Ont. (VOR)

17962N 19024E  
freq 115

## Au Sable (VOR)

18371N 17948E  
freq 116.1

## Cochill (VOR)

18617N 19036E  
freq 115.1

## Earlton, Ont.

## Earlton

19558N 18902E  
alt 797

RWY 7-25	8002 X 150
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全書四卷，(67)(72)兩冊。

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Conc'd g/CP:

1524 1525

Gaylord, MI

Chicago Co

18598N 1753E  
alt. 1328

RWY 0-27	498 X 98
RWY 0-18	297 X 72

Gladwin, MI

### Gleichheit

1813N 1760E  
 或 77

RWY 9-27 4000 X 72

Houghton Lake (NOR)

18311N 17555E  
freq. 11L6

Houghton Lake, MI

Resurrection Co

1841N 17857E  
Alt. 1151

RWY 027 4001 X 72

Killaboe (VOR)

1961N	1961E
freq	1156

Kleinburg (NOR)

1823N 1910E  
freq 1145

London, Ont. (NOR)

```
1780IN 1868GE
freq 117.2
```

Marquette, Ont.

Cure Bay

1906N 18163E  
alt. 636

RWY 11-29 400 X 98

Medikant (✓ OK)

18517N	10056E
freq	1128

## North Bay (VOR)

19295N 19081E  
freq. 115.4

## North Bay, Ont.

19295N 19065E  
alt. 1214

RWY 8-26 997 X 196  
RWY 13-31 6002 X 150  
RWY 18-36 4473 X 150

## North Bay (F)



## Osceola, MI

18374N 17949E  
alt. 626

RWY 6-24 11801 X 301

## Wurtsmith AFB



## Peck (VOR)

17855N 18182E  
freq. 114

## Pellston (VOR)

18863N 17534E  
freq. 111.8

## Pellston, MI

18863N 17493E  
alt. 722

RWY 14-32 4814 X 150  
RWY 5-23 5392 X 150

## Emmet Co



## Pembroke, Ont.

19159N 19761E  
alt. 528

RWY 17-35 4998 X 98

## Pembroke



## Saginaw (VOR)

17946N 17747E  
freq. 112.9

## Sault Ste Marie, MI

19224N 17605E  
alt. 715

RWY 14-32 4001 X 98

## Sault Saint Marie



## Sault Ste Marie, Ont. Sault Ste Marie

19232N 17564E  
alt. 1689RWY 4-22 6002 X 156  
RWY 11-29 6002 X 156

## Toronto (VOR)

18126N 19127E  
freq. 113.5

## Val D' Or (VOR)

20127N 19468E  
freq. 113.7

## Val D' Or, Que.

## Val D' Or (F)

20077N 19483E  
alt. 1105

RWY 0-18 9997 X 196



## Sault Ste Marie, MI Chippewa Co Intl

19132N 17583E  
alt. 800

RWY 16-34 7212 X 196



## Stirling (VOR)

18506N 19703E  
freq. 113.5

## Sudbury (VOR)

19371N 18666E  
freq. 112.3

## Sudbury, Ont.

## Sudbury (F)

19368N 18667E  
alt. 1141RWY 4-22 6999 X 196  
RWY 12-30 4998 X 196

## Warton (VOR)

18551N 18647E  
freq. 117.7

## Warton, Ont.

## Warton

18550N 18645E  
alt. 728

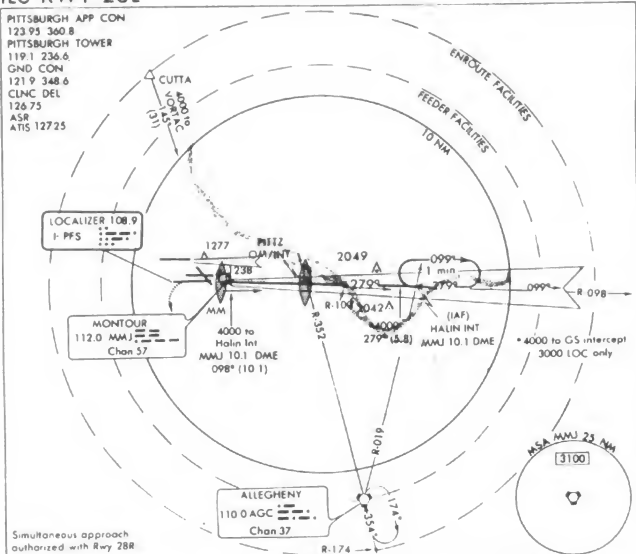
RWY 5-23 4919 X 150



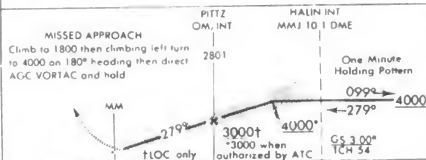


PITTSBURGH/GREATER PITTSBURGH INTL (PIT)  
AL-570 (FAA) PITTSBURGH, PENNSYLVANIA

PITTSBURGH APP CON  
123.95 360.8  
PITTSBURGH TOWER  
119.1 236.6  
GND CON  
121.9 348.6  
CLNC DEL  
126.75  
ASR  
ATIS 127.25

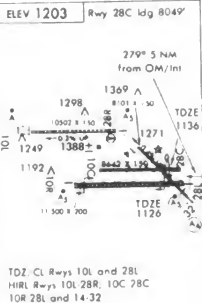


Simultaneous approach  
authorized with Rwy 28R



CATEGORY	A	B	C	D	E
S ILS 281	1326/18 200 (200-½)			1326/20 200 (200-½)	1326/24 200 (200-½)
S LOC 281	1620/24 494 (500-½)		1620/40 494 (500-¾)	1620/50 494 (500-1)	1620/60 494 (500-1½)
SIDESTEP RWY 28C	1620/50 484 (500-1)		1620-1 ½ 484 (500-1½)	1620-2 484 (500-2)	
CIRCLING	1700-1 497 (500-1)		1700-1 ½ 497 (500-1½)	1760-2 557 (600-2)	

Cat. E. S. LOC 28L. increase visibility 1/2 mile for inoperative MALSR



	FAF to MAP 5 NM				
Knots	60	90	120	150	180
Min Sec	5:00	3:20	2:30	2:00	1:40

ILS RWY 28L

40 29 N 80 14 W  
PITTSB

PITTSBURGH, PENNSYLVANIA  
PITTSBURGH INTL (PIT)

# AIRPORT DIRECTORY - LAKE HURON AREA

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
				(Feet)	(Ray/Freq)
Alpena, MI	Phelps Collins	18639	17885	688	
Earlton, Ont.	Earlton	19858	18902	797	
Gaylord, MI	Otsego Co	18595	17533	1328	
Houghton Lake, MI	Roscommon Co	18311	17557	1151	
Manitowlin, Ont.	Gore Bay	19008	18163	636	
North Bay, Ont.	North Bay	19295	19085	1214	
Oscoda, MI	Wurtsmith AFB	18374	17949	626	
Pellston, MI	Emmet Co	18836	17493	722	
Pembroke, Ont.	Pembroke	19159	19761	528	
Sault Ste Marie, MI	Sault Saint Marie	19236	17605	715	
Sault Ste Marie, Ont.	Sault Ste Marie	19232	17554	1689	
Sault Ste Marie, MI	Chippewa Co Intl	19132	17583	800	
Sudbury, Ont.	Sudbury	19368	18667	1141	
Val D' Or, Qué.	Val D' Or	20077	19483	1105	
Warton, Ont.	Warton	18550	18645	728	

North and east coordinates are canted at + 5° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert con-formal conic projection.

## LEGEND



Civil-Public use airport



Restricted/Private-Nonpublic use airport, having emergency use or landmark value



Rotating light in operation, sunset to sunrise

SANTA MONICA  
ATIS 119.15  
175-50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

Non Directional Beacon

VOR/DME  
NAME  
FREQUENCY

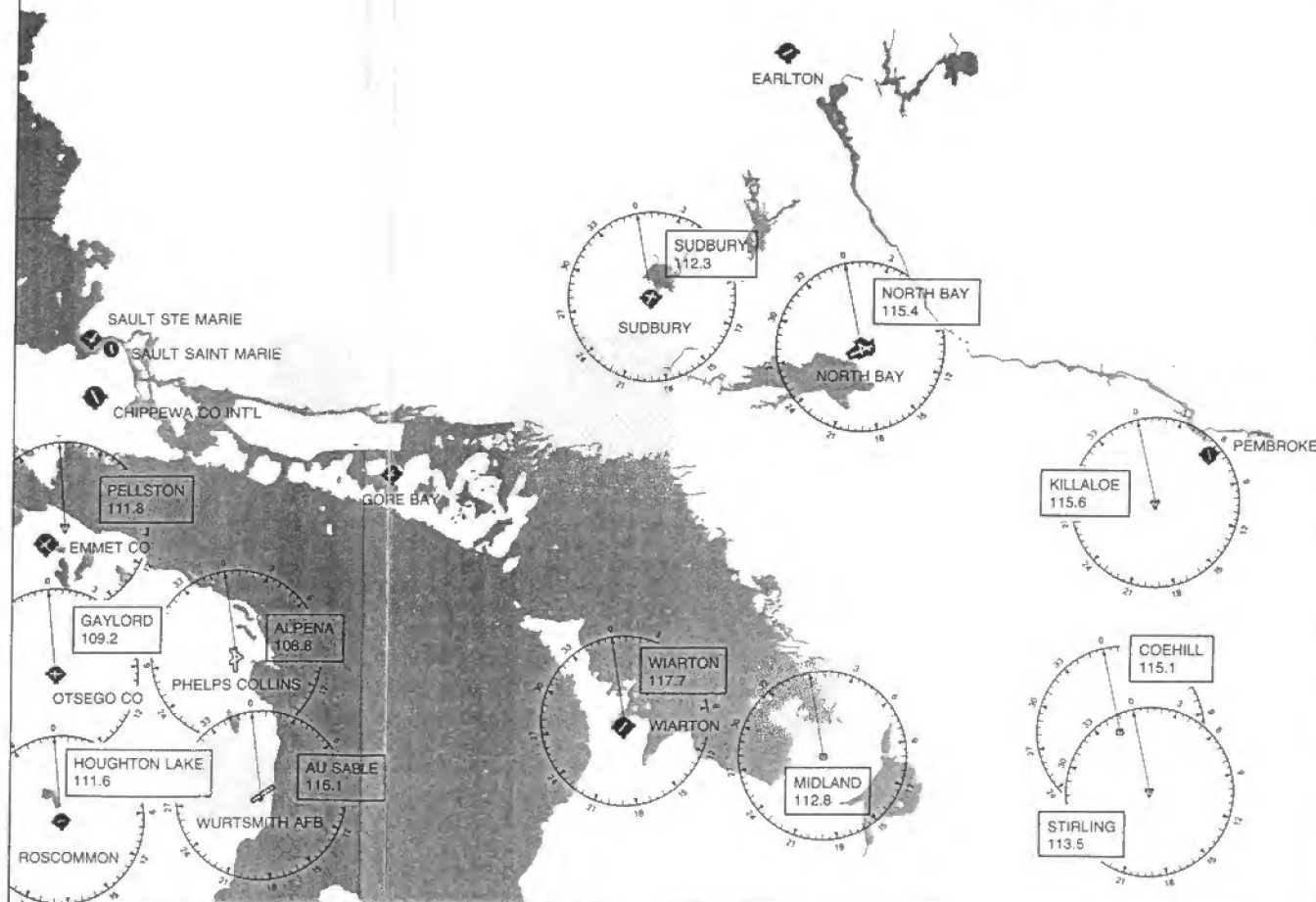
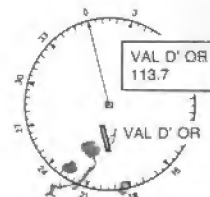
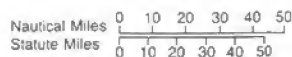
If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

## AIRPORT NAME ABBREVIATIONS

CO	County
FLD	Field
INTL	International
MUNI	Municipal
(PVT)	Private Airport (prior permission before landing)

# LAKE HURON AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



SubLOGIC Scenery Disks are grouped by aeronautical sectional. Each SD covers a geographical region of the United States, generally comprised of three sectionals.



#### WEST

- 3 Dallas - Ft. Worth  
Houston  
San Antonio  
Grandville
- 7 Phoenix  
Albuquerque  
El Paso
- 4 San Francisco  
Los Angeles  
Las Vegas
- 4 Reno/Tahoe  
Seattle  
Olympia
- 5 Salt Lake City  
Cheyenne  
Denver
- 6 Omaha  
Minneapolis  
Kansas City

#### EAST

- 1 Washington  
Charlotte  
Jacksonville  
Miami
- 8 Memphis  
Atlanta  
New Orleans
- 9 Chicago  
St. Louis  
Cincinnati
- 3 Billings  
Fort Collins  
Green Bay
- 11 Lake Huron  
Detroit
- 2 Milwaukee  
Minneapolis  
New York

In addition to twelve regional Scenery Disks, a number of STAR Scenery Disks are also available. A STAR Scenery Disk covers a small area with a relatively dense amount of scenery. These disks are mainly intended for visual flight (sight-seeing). They include buildings and landmarks, as well as detailed renditions of the major airports in the area.

## Reading a Sectional Directory

Below is a sample listing from a sectional directory with a description of the information provided. All available airports and radio-aid aids for a given sectional are listed alphabetically. Radio transmitters that border a sectional are also available on neighboring sectionals, so you can cross sectional boundaries when instrument flying.

2 — 2 ALBUQUERQUE AND EL PASO — 2

3 — Alpine

4 — 12628N 10551E — 4  
5 — alt. 4513  
6 — Run 1 19 4 72  
Run 5 23 4821 4 39



8 — Anton Chico (VOR) — 8

9 — 14210N 10537E — 9  
10 — freq. 117

11 — Artesia (NDB) — 11

12 — 13703N 10515E — 12  
13 — freq. 411

- 1. Page number
- 2. Sectional name
- 3. Airport name
- 4. North coordinate
- 5. East coordinate
- 6. Altitude in feet
- 7. Runway Designator, number
- 8. Runway dimensions in feet
- 9. Radio Aid name
- 10. Radio Aid type designation
- 11. Radio Aid frequency

Notice that the vertical sides of the airport map align with magnetic north. Magnetic north is the direction you are pointing when your magnetic compass reads 0. Each sectional map's VOR needles point toward magnetic north. The sides of the map align with true north. This is consistent with NOAA sectionals.

U.S. Scenery Disk areas are grouped as follows:



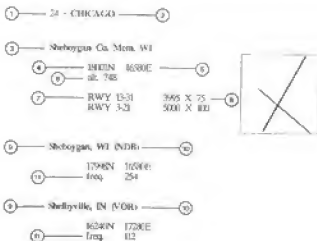
- |  |   |
|--|---|
| <p><b>WEST</b></p> <p>1 Dallas-Ft. Worth<br/>Houston<br/>San Antonio<br/>Brownsville</p> <p>2 Phoenix<br/>Albuquerque<br/>El Paso</p> <p>3 San Francisco<br/>Los Angeles<br/>Las Vegas</p> <p>4 Kansas City<br/>Seattle<br/>Great Falls</p> <p>5 Salt Lake City<br/>Cheyenne<br/>Denver</p> <p>6 Omaha<br/>Minneapolis<br/>Kansas City</p> | <p><b>EAST</b></p> <p>7 Washington<br/>Chicago<br/>Jacksonville<br/>Miami</p> <p>8 Memphis<br/>Atlanta<br/>New Orleans</p> <p>9 Chicago<br/>St. Louis<br/>Cincinnati</p> <p>10 St. Louis<br/>Tulsa<br/>Green Bay</p> <p>11 Lake Huron<br/>Detroit</p> <p>12 Halifax<br/>Montreal<br/>New York</p> |
|--|---|

Scenery Disks for other areas of the world are also available. Japan Scenery Disk covers the area from Tokyo to Osaka in great detail. "Western European Tour" Scenery Disk provides detailed scenery covering southern Great Britain, northern France, and southern West Germany, with a side trip to Red Square in Moscow! San Francisco Scenery Disk covers the Bay area in great detail, and is designed primarily for local area sightseeing.

Scenery Disks are available in 5-1/4" and/or 3-1/2" disk format for most computer systems. Contact SubLOGIC for information on which scenery areas and disk formats are currently available for your system.

## Reading a Sectional Directory

Below is a sample listing from a sectional directory with a description of the information provided. All available airports and radio-nav aids for a given sectional are listed alphabetically. Radio transmitters that border a sectional are also available on neighboring sectionals, so you can cross sectional boundaries when instrument flying.



- |    |                           |
|----|---------------------------|
| 1  | Page number               |
| 2  | Sectional name            |
| 3  | Airport name              |
| 4  | North coordinate          |
| 5  | East coordinate           |
| 6  | Altitude in feet          |
| 7  | Runway Designator, number |
| 8  | Runway dimensions in feet |
| 9  | Radio Aid name            |
| 10 | Radio Aid type designator |
| 11 | Radio Aid frequency       |

Notice that the vertical sides of the airport map align with magnetic north. Magnetic north is the direction you are pointing when your magnetic compass reads 0. Each sectional map's VOR needles point toward magnetic north. The sides of the map align with true north. This is consistent with NOAA sectionals.

## Reading a STAR SD Sectional Directory

This Star SD sectional directory lists all available airports in alphabetical order, followed by all radio-aids. Each airport includes a detailed diagram of the airport as it appears on the disk. Airport and radio-aid listings are organized as follows:

1 — 2 — ALBUQUERQUE AND EL PASO — 3

(Airport Diagram)

4 — Alpine

5 — 12420N 10641E — 6  
7 — Alt. 45.3

8 — RWY 1 19      9 — 5900 X 72  
10 — RWY 5 23      11 — 1881 X 39

4 — Anton Chico (VOR) — 6

5 — 14710N 10517E — 6  
7 — Freq. 113

4 — Artesia (HOB) — 6

5 — 13701N 10515E — 6  
7 — Freq. 114

- |    |                           |
|----|---------------------------|
| 1  | Page number               |
| 2  | Sectional name            |
| 3  | Airport name              |
| 4  | North coordinate          |
| 5  | East coordinate           |
| 6  | Altitude in feet          |
| 7  | Runway Designator, number |
| 8  | Runway dimensions in feet |
| 9  | Radio Aid name            |
| 10 | Radio Aid type designator |
| 11 | Radio Aid frequency       |

The vertical sides of each airport diagram align with magnetic north. Magnetic north is the direction you are pointing when your magnetic compass reads 0. Each sectional map's VOR needles point toward magnetic north. The sides of the map align with true north. This is consistent with NOAA sectionals.

## Using a Scenery Disk with Flight Simulator II

Load Flight Simulator II in the usual way. When the program has finished loading enter the simulator's program editor as described in your operating manual and set the NORTH and EAST coordinates of the airport you've chosen from the directory for the region you'd like to explore (set ALTITUDE to 0). Exit the editor, remove the FSII disk and insert the appropriate Scenery Disk. Next, press CTRL E and wait for a menu to appear. This menu page lists the names of the sectionals included on the Scenery Disk. Press any key to exit, and you should find yourself at the airport you've selected. If no scenery is visible, go into radar mode and zoom out to determine your approximate location. You may be able to zoom all the way out and view the entire continental United States database, complete with rivers, highways, coastlines, and the Great Lakes. This default database display indicates that you are not within the boundaries of the sectionals included on your disk. Re-enter the program editor and double-check your coordinates, making sure that both NORTH and EAST coordinates are correct.

When you find yourself at the airport you've selected, it may be a good idea to save your position to a User Mode (see User Mode Library in the FSII Pilot's Operating Handbook). This way, if you crash you will be returned to the selected airport. Otherwise you will be returned to a preset location (above Lake Michigan) in the default USA database.

## Crossing a Sectional Boundary

When you fly over a sectional boundary, one of two things will occur. If the neighboring sectional is also included on your Scenery Disk, that sectional will load and you will have to switch to the appropriate new map and directory provided. If the neighboring sectional is not available on your disk, a common default USA database will load. This default database allows you to zoom out in radar mode to view the major geographical features of the United States.

If you have another Scenery Disk containing the appropriate sectional, you can switch disks and press CTRL E to log-in the new disk. After a brief load, the names of the new sectionals available on this disk will be displayed. Press any key to exit and return to Flight Simulator II.

**IMPORTANT** - If you want to change Scenery Disks or go back to the scenery on the FSII disk, you must log-in the new disk by pressing CTRL E. If you do not log-in the new disk, you will not get the new scenery and you will risk causing a disk load error.

## Using a Scenery Disk with Microsoft Flight Simulator (IBM PC Versions)

Load Flight Simulator in the usual way. When you want to switch to a Scenery Disk, remove the Flight Simulator disk and insert the appropriate Scenery Disk. Press CTRL E. This will log-in the disk. A message will appear on the screen identifying the names of the sectional areas contained on the disk.

The first Scenery Disk log-in automatically checks to see if you have the most recent version of Flight Simulator. If you don't, the program updates Flight Simulator in memory. When this happens, your flight coordinates are set back to the Chicago area. This will only happen on the first Scenery Disk log-in of the session. After the first log-in, your flight coordinates and conditions will carry over as you change Scenery Disks while flying.

After logging in the first Scenery Disk, you can fly or slew through all of the scenery on the disk. You can freely exchange Scenery Disks as you fly to new areas. Press CTRL E to log-in the new area when you switch disks. If you fail to log-in a new Scenery Disk after inserting it, it will be automatically logged in when the disk is accessed. The log-in message will appear after every manual or automatic log-in.

## Using the Microsoft Flight Simulator Disk as a Scenery Disk

The Flight Simulator disk contains all of the usual scenery for the Chicago, Seattle, Los Angeles, and New York areas. You can insert this disk and log it in as you would any other Scenery Disk to fly in these areas. This applies to Jetas well as Flight Simulator.

## Special Note for IBM PC Flight Simulator Version 2.0

Very few copies of Version 2.0 exist. You most likely have Version 2.1, 2.10, 2.10a, 2.12, or a later version of Microsoft Flight Simulator. Look on the disk label near the serial number area, or look on the first menu page when loading Flight Simulator. If you have Version 2.0, insert the Scenery Disk and press ESC instead of CTRL E for the first log-in of the session. After this first log-in, press CTRL E as usual to log-in new Scenery Disks. Also, never re-insert the Version 2.0 disk to use the Chicago, Seattle, Los Angeles, or New York scenery; you must re-boot Version 2.0 to return to these areas. Version 2.0 also cannot be used as a Scenery Disk for Jet.

## Tandy 1000/1200/2000 Flight Simulator

Scenery Disks are compatible with the Tandy 1000/1200/2000 version of Flight Simulator. With this version, always make sure to log-in a new Scenery Disk by pressing CTRL E once the disk has been inserted. No auto-load is available on this version, and failure to log-in a new disk can cause unpredictable results when the disk is accessed after an unlogged disk change.

## Special Note for Compaq 286 Users

The 1.2Mbyte floppy drives in the Compaq Deskpro 286 computer cause disk-read errors when using Scenery Disks with SubLOGIC Jet or Microsoft Flight Simulator. Here is the reason why, and how to get around it.

**PROBLEM** - Whenever you remove a disk from the floppy drive by turning the release lever, the diskette springs out of the drive. This spring action triggers a switch in the drive that informs the disk read/write software that you have just changed the disk. The software assumes that you are about to insert a new disk, and switches to 1.2Mbyte read mode from whatever mode it happens to be in. Jet, Flight Simulator, Scenery Disks (and many other manufacturers programs) are on 360K disks, and a read error results when the Compaq 286 tries to read them as 1.2Mbyte disks.

You can verify this for yourself using the Microsoft Flight Simulator. Boot the disk, then enter and exit the editor several times (ESC key) just to see that everything is functioning properly. Then pop the disk out of the drive, re-insert it, and try to get back into the program editor. You will get a disk read error.

**SOLUTION** - You can avoid this problem by tricking the disk drive into thinking that you haven't changed disks. Do this by holding the disk in place with your finger while releasing the disk-release lever. DON'T LET THE DISK POP OUT OF THE DRIVE. Then manually remove the disk and insert a Scenery Disk (or Flight Simulator as scenery for Jet). The computer will never know that you changed the disk, and everything should work fine. Remember - if you let the disk pop itself out of the drive, the switch will be activated and the drive will go into 1.2Mbyte mode, thus creating errors.

## Jet Users

Scenery Disks are compatible with SubLOGIC Jet. Follow the instructions in your Jet manual for loading a Scenery Disk. Jet has no automatic login feature, so always make sure you return to the Jet startup menu page before inserting a new Scenery disk. Changing Scenery Disks in the middle of a Jet flight can cause unpredictable results when the disk is accessed after a disk change.

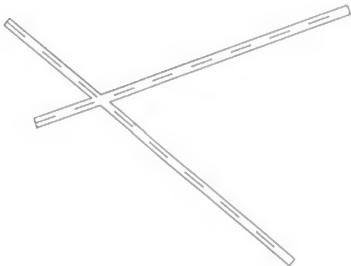
## Conclusion

As of this writing there are no fuel or repair facilities available on regular Scenery Disks (although they do occur on STAR Scenery Disks.) To refuel, maintain an airport and enter the program editor. Your tanks will be filled and repairs will be made when you exit the editor.

We intend to periodically update and improve our Scenery Disks to include more airports, radio aids, and scenery details as recommended by users. If you know of an airport (or any other detail) that should be included on future versions of these Scenery Disks, please drop us a line and include the required information ON A SEPARATE SHEET OF PAPER (so we can store it in our files). Here's what we need to know:

Airports:	NAME, CITY, & STATE LATITUDE, LONGITUDE, & ALTITUDE HEADING, LENGTH, & WIDTH of each runway.
Buildings, objects:	NAME, CITY, & STATE LATITUDE, LONGITUDE, & DIMENSIONS

Pictures and postcards are also welcome, especially aerial views. If you're unable to determine the latitude and longitude for the object or airport in question, please provide a description of where the object can be located on a map. All customer correspondence is read and answered (when appropriate). And please: remember to include any scenery suggestions or information on a SEPARATE page of your letter.

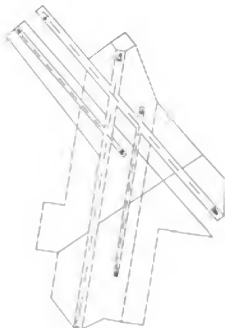


Alameda NAS

17402N 5102E  
alt. 13

RAY 7-25	7200 X 200
RAY 13-31	8000 X 200





Concord, Buchanan Fld. (F)

17449N 5214E  
alt. 23

RWY 11-19R	4712 x 150
RWY 14L-32R	4601 x 150
RWY 14R-32L	2800 x 75
RWY 1R-19L	2768 x 75

ATIS: 124.7

Antioch

17407N 5295E  
alt. 185

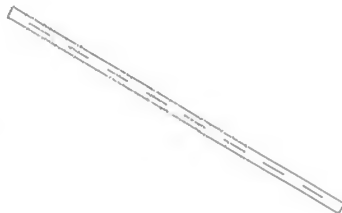
RWY 9-27 2480 x 33



Fremont

17226N 5177E  
alt. 4

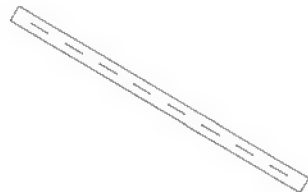
RWY 13-31 2310 X 40



Half Moon Bay

17312N 5004E  
alt. 67

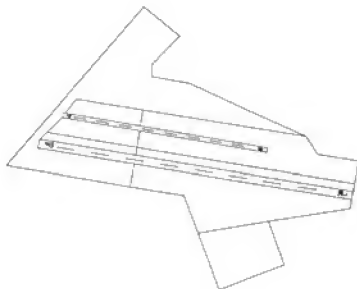
RWY 12 30 5000 X 150



Hamilton Army

17534N 5082E  
alt. 3

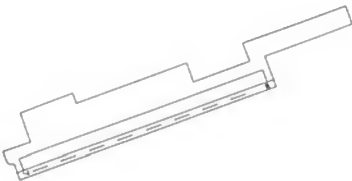
RWY 12-30 8000 X 400



Mayward Air Terminal

17329N 5145E  
alt. 47

RWY 10R-28L 5159 X 150  
RWY 10L-20R 3536 X 75



Livermore (F)

17304N 5247E  
alt. 397

RWY 7-25 4005 X 100

ILS 25

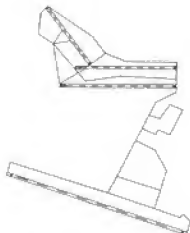
FREQUENCY: 110.5  
HEADING: 255 degrees  
ALTITUDE: 2162 ft. @LOM



Moffett NAS

17220N 5134E  
alt. 34

RWY 14L-32R 9200 X 200  
RWY 14R-32L 8120 X 200



Oakland Int'l (F)

17365N 5124E  
alt. 7

Rwy 11-29	10000 X 150
Rwy 9R-27L	6242 X 150
Rwy 15-33	3366 X 75
Rwy 9L-27R	5453 X 150

ATIS: 128.5 or 129.0 (North fie

ILS 11

FREQUENCY: 111.9  
HEADING: 113 degrees  
ALTITUDE: 1722 ft. @LOM

ILS 29

FREQUENCY: 108.7  
HEADING: 293 degrees  
ALTITUDE: 1682 ft. @LOM



Palo Alto

17245N 5119E  
alt. 5

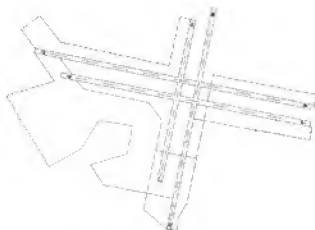
Rwy 12-30 2500 X 65



San Carlos

17281N 5084E  
alt. 2

RWY 12-30      2600 X 75



San Francisco (F)

17340N 5053E  
alt. 10

RWY 10L-28R	11870 X 200
RWY 10R-28L	10600 X 200
RWY 1R-19L	9500 X 200
RWY 1L-19R	7001 X 200

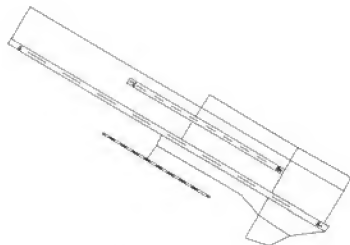
ATIS:                      115.8

ILS 28L

FREQUENCY:      109.5  
HEADING:          281 degrees  
ALTITUDE:          1735 ft. @LOM

ILS 19L

FREQUENCY:      108.9  
HEADING:          191 degrees  
ALTITUDE:          2628 ft. @ 8.6 DME



## San Jose Intl

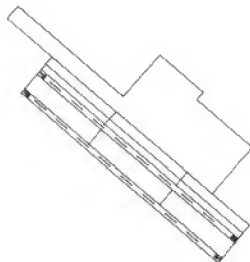
17185N 5184E  
alt. 59

RWY 12R-30L 8899 X 150  
RWY 12L-30R 4419 X 150  
RWY 11-29 3000 X 40

ATIS: 114.1

ILS 12R

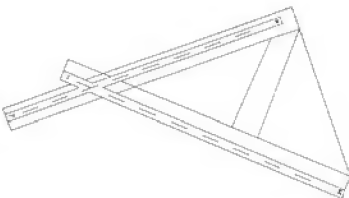
FREQUENCY: 111.1  
HEADING: 123 degrees  
ALTITUDE: 1798 ft. MSL



## San Jose, Reid - Hillview

17160N 5194E  
alt. 133

RWY 13L-31R 3101 X 75  
RWY 13R-31L 3099 X 75



Tracy Muni (F)

17258N 5366E  
alt. 192RWY 7-25 3418 X 75  
RWY 11-29 3680 X 100

Concord (VOR)

17473N 5234E  
freq. 117

Oakland (VOR)

17365N 5124E  
freq. 116.8

Pajar (NDB)

16978N 5131E  
freq. 327

Pigeon Point (NDB)

17166N 4988E  
freq. 286

Point Reyes (VOR)

17588N 4975E  
freq. 113.7

Reiga (NDB)

17287N 5292E  
freq. 374

Sacramento (VOR)

17572N 5456E  
freq. 115.2

San Francisco (VOR)

17340N 506CE  
freq. 115.8



# 18 - 'STAR' SAN FRANCISCO

## San Jose (VOR)

17185N	5164E
freq.	114.1

## Sausalito (VOR)

17452N	5050E
freq.	116.2

## Scaggs Island (VOR)

17567N	5149E
freq.	112.1

## Travis (VOR)

17565N	5358E
freq.	115.4

## Woodside (VOR)

17233N	5054E
freq.	113.9

# AIRPORT DIRECTORY—SAN FRANCISCO AREA

CITY	AIRPORT	NORTH	EAST	ALT.	ILS
Alameda NAS	Nimitz Field	17402	5102	13	
Antioch	Antioch	17407	5295	185	
Concord	Buchanan Field	17449	5214	23	
Fremont	Fremont	17226	5177	4	
Half Moon Bay	Half Moon Bay	17312	5004	67	
Hayward	Hayward Air Terminal	17329	5145	47	
Livermore	Livermore Muni	17304	5247	397	25/110.5
Mountain View	Moffett Field NAS	17220	5134	34	
Oakland	Oakland Intl	17365	5124	7	11/111.9 29/108.7
Palo Alto	Palo Alto	17245	5119	5	
San Carlos	San Carlos	17281	5084	2	
San Francisco	San Francisco Intl	17340	5060	10	28L/109.5 19L/108.9 12R/111.1
San Jose	San Jose Intl	17185	5164	56	
San Jose	Reid-Hillview	17160	5194	133	
San Rafael	Hamilton Army	17534	5082	3	
Tracy	Tracy Muni	17258	5366	192	

North and east coordinates are canted at -20° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.

## LEGEND



Civil-Public use airport



Restricted Private-Nonpublic use airport, having emergency use or landmark value



Rotating light in operation, sunset to sunrise

SANTA MONICA  
ATIS 119.15  
175-50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR DME

NAME  
FREQUENCY

Non Directional Beacon

VOR DME  
NAME  
FREQUENCY

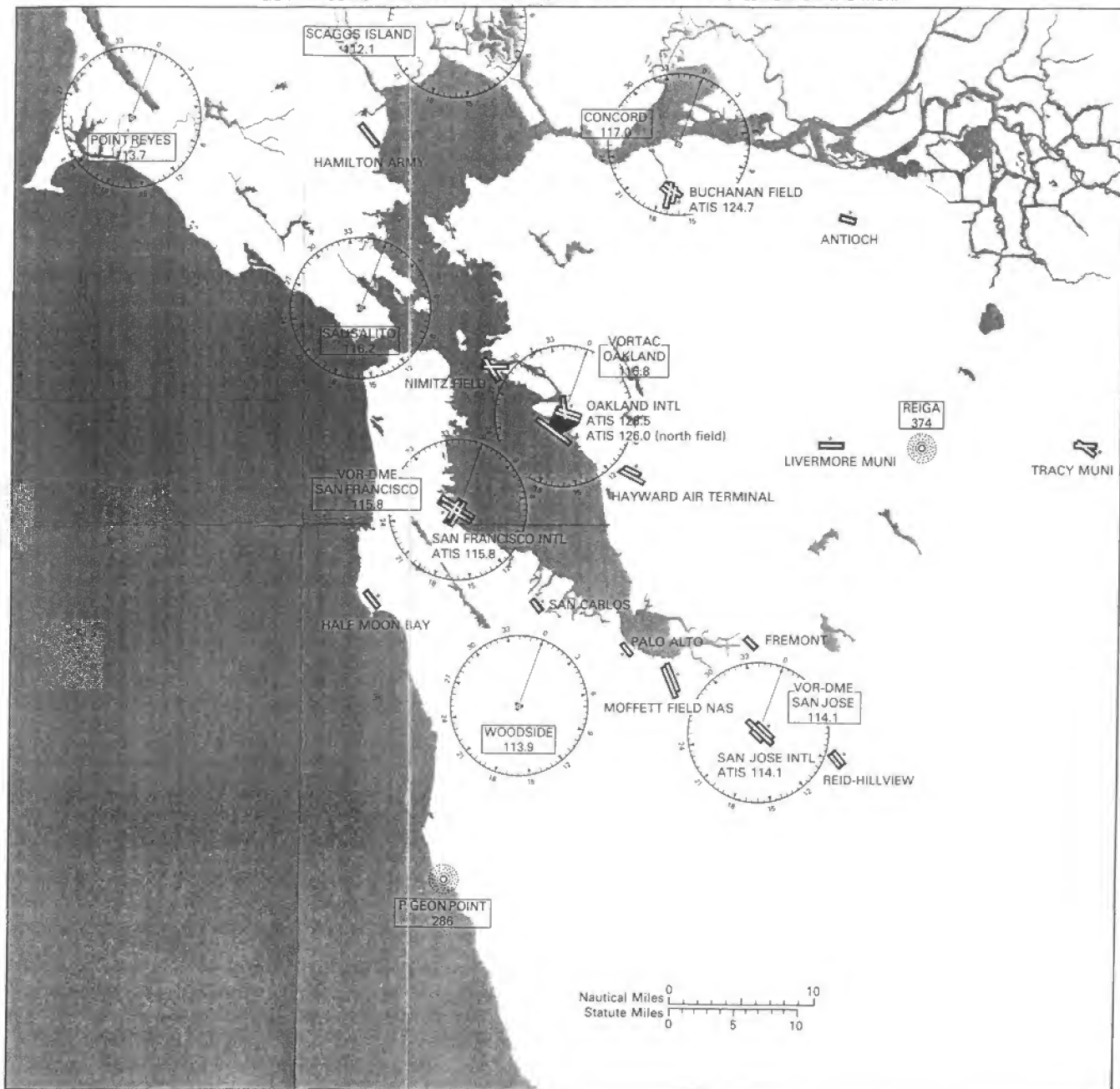
If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

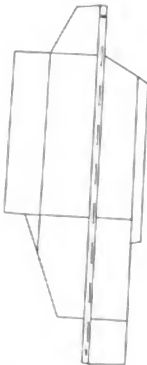
## AIRPORT NAME ABBREVIATIONS

CO	County
FLD	Field
INTL	International
MUNI	Municipal
(PVT)	Private Airport (prior permission before landing)

# SAN FRANCISCO AREA CHART

FLIGHT SIMULATOR II REFERENCE CHART. NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.





Atsugi

18118N 32707E

Alt. 205

RWY 1-19

8000 X 150

ILS 1

FREQUENCY: 111.3

HEADING: 7

ALTITUDE: 1500 @ 4.1 DME



Gifu

17714N 13890E  
Alt. 128

RWY 10-28 8860 X 150

Hamamatsu

17504N 132274E  
Alt. 151

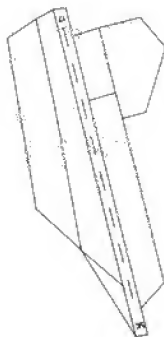
RWY 9-27 8366 X 197



Hyakuri

18542N 32874E  
Alt. 104

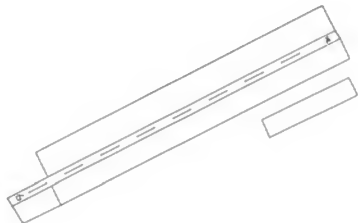
RWY 3-21 8860 X 150



Inuma

18262N 32619E  
Alt. 299

RWY 17-35 6562 X 148



## Komatsu

18042N 31572E  
Alt. 18

Rwy 6-24 8860 X 150

ILS 6

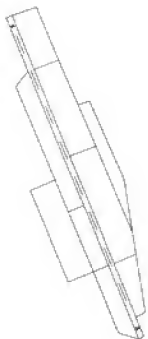
FREQUENCY: 110.1  
HEADING: 61  
ALTITUDE: 1084 @ 3.7 DME



## Matsumoto

18170N 32090E  
Alt. 2155

Rwy 18 36 4920 X 100



Nagoya

17559N 31932E  
Alt. 52

RWY 16-34 9000 X 150

ILS 34  
FREQUENCY: 111.7  
HEADING: 339  
ALTITUDE: 2312 @ 0.4 DME



New Tokyo Int'l (Narita)

18375N 32940E  
Alt. 139

RWY 16-34 13123 X 200

ILS 16  
FREQUENCY: 111.1  
HEADING: 156  
ALTITUDE: 1461 @ 3.9 DME

ILS 34  
FREQUENCY: 111.9  
HEADING: 336  
ALTITUDE: 1678 @ 4.5 DME



Osaka Int'l

17267N 31528E  
Alt. 49

Rwy 14L-32R 6000 X 150  
Rwy 14R-32L 9840 X 200



Shimofusa

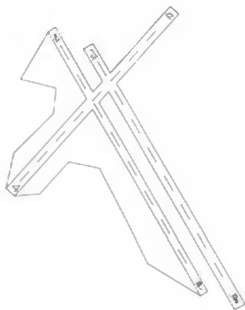
18334N 32819E  
Alt. 98

Rwy 18-36 7380 X 200

ILS 18

FREQUENCY: 109.1  
HEADING: 186  
ALTITUDE: 1998 @ 6.3 DME





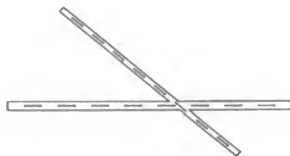
Tokyo Int'l (Haneda)

18201N 132787E  
Alt. 12

Rwy 4-19	8200 X 150
Rwy 15L-33R	10335 X 200
Rwy 15R-33L	9840 X 150

ILS 33R

FREQUENCY:	110.9
HEADING:	332
ALTITUDE:	2966 @ 10.5 DME



Yao

17220N 131616E  
Alt. 33

Rwy 9-27	4390 X 150
Rwy 13-31	3940 X 100



Yokota

18217N 32618E  
Alt. 457

RWY 18-36 11000 X 200

ILS 36

FREQUENCY: 109.7  
HEADING: 357  
ALTITUDE: 2114 0 7 000

Aichi (NDB)

17533N 31976E  
freq. 397

Akino (NDB)

17347N 31988E  
freq. 380

Ami (VOR)

18451N 32839E  
freq. 116

Atsugi (NDB)

18119N 32711E  
freq. 265

Chigasaki (NDB)

18055N 32712E  
freq. 236

Choshi (VOR)

18427N 33082E  
freq. 113.6

Daigo (NDB)

18765N 32751E  
freq. 225

Daigo (VOR)

18754N 32749E  
freq. 115.3

## Eja (NDB)

18172N 32716E  
freq. 357

## Fuku (NDB)

17930N 31549E  
freq. 400

## Goboh (VOR)

16876N 31373E  
freq. 116.9

## Hamamatsu (NDB)

17580N 32272E  
freq. 229

## Hamamatsu (VOR)

17580N 32272E  
freq. 114.7

## Handeda (VOR)

18202N 32787E  
freq. 116.5

## Hotaka (NDB)

18216N 32062E  
freq. 387

## Hyakuri (NDB)

18547N 32877E  
freq. 366

## Hyakuri (VOR)

18546N 32873E  
freq. 113.3

## Itami (NDB)

17276N 31516E  
freq. 205

## Iwaki (VOR)

19002N 32866E  
freq. 117.7

## Kawakado (NDB)

18289N 32578E  
freq. 251

## Komatsu (NDB)

18048N 31571E  
freq. 234

## Komatsu (VOR)

18043N 31569E  
freq. 112

## Kowa (NDB)

17467N 32025E  
freq. 325

## Kowa (VOR)

17455N 32042E  
freq. 113.5

## Kumagaya (NDB)

18372N 32530E  
freq. 240

## Kushimoto (NDB)

16789N 31875E  
freq. 275

## Kushimoto (VOR)

16792N 31879E  
freq. 112.9

## Matsumoto (VOR)

18167N 32095E  
freq. 117.6

## Miyakejima (NDB)

17594N 32995E  
freq. 260

## Miyakejima (VOR)

17602N 32970E  
freq. 117.8

## Miyazu (VOR)

17503N 31318E  
freq. 112.6

## Moriya (VOR)

18382N 32785E  
freq. 114

## Nagoya (NDB)

17666N 31933E  
freq. 360

## Nagoya (VOR)

17671N 31928E  
freq. 114.2

## Nanki-Shirahama (NDB)

16816N 31698E  
freq. 394

## Narita (VOR)

18376N 32940E  
freq. 117.3

## Nasu (VOR)

18720N 32643E  
freq. 114.8

## Nikko (NDB)

18132N 32643E  
freq. 379

## Ogijima (VOR)

18131N 33040E  
freq. 115.7

## Ozawa (NDB)

17257N 31886E  
freq. 340

## Osaka (VOR)

17270N 31541E  
freq. 113.9

## Oshima (NDB)

17913N 32830E  
freq. 216

## Oshima (VOR)

17812N 32830E  
freq. 113.1

## Oshima Airport (NDB)

17843N 32800E  
freq. 392

## Otsu (NDB)

17436N 31531E  
freq. 358

## Otsu (VOR)

17416N 31620E  
freq. 117.1

## Rankin (NDB)

18131N 32677E  
freq. 379

## Sakura (NDB)

18338N 32890E  
freq. 350

## Sakura (VOR)

18366N 32901E  
freq. 112.7

## Sekiyo (VOR)

18391N 32727E  
freq. 117

## Shinoda (NDB)

17153N 31584E  
freq. 219

## Shinoda (VOR)

17155N 31587E  
freq. 112.3

## Shizuoka (VOR)

17696N 32452E  
freq. 109.2

## Tachikawa (NDB)

18251N 32630E  
freq. 330

## Tateyama (NDB)

18003N 32927E  
freq. 373

## Tateyama (VOR)

17586N 32942E  
freq. 112.5

## Tokushima (VOR)

16897N	31367E
freq.	114.9

## Tottori (NDB)

17391N	30998E
freq.	349

## Toyama (NDB)

18250N	31774E
freq.	354

## Yao (NDB)

17217N	31618E
freq.	386

## Yokosuka (NDB)

13041N	32806E
freq.	270

## Yokosuka (VOR)

18060N	32787E
freq.	116.2

## Zama (NDB)

18156N	32659E
freq.	401

# APPROACH CHARTS

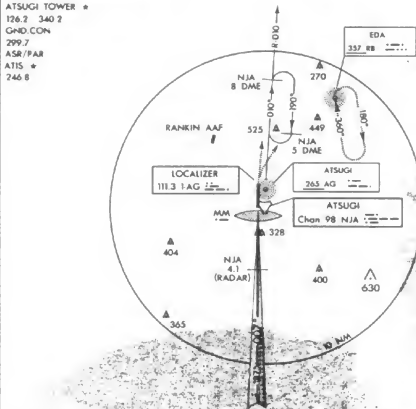
厚木飛行場

ATSUGI (RJTA)

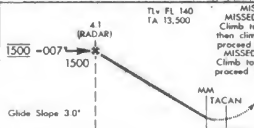
AYASE, HONSHU I., JAPAN

ILS

YOKOTA APP CON  
123.8 367.0  
ATSUGI TOWER \*  
126.2 340.2  
GND CON  
299.7  
ASR/PAR  
ATIS \*  
246.8



EMERG. SAFE ALT 100 NM 15,000



MISSED APPROACH  
MISSED APPROACH No. 1  
Climb to 800 heading 007°,  
then climb to 2000 via R-010,  
proceed to 8 DME and hold.  
MISSED APPROACH No. 2  
Climb to 2000 heading 007°,  
proceed to RB NDB and hold.

ELEV 205



CATEGORY	A	B	C	D
S-ILS 01	377/730m 193 (200-800m)		377/1220m 193 (200-1200m)	
S-LOC 01	660/1220m 476 (500-1200m)		660/1520m 476 (500-1600m)	660/1830m 476 (500-2000m)
CIRCLING*	660-1600m 455 (500-1600m)	700-1600m 495 (500-1600m)	720-2400m 515 (600-2400m)	760-3200m 555 (600-3200m)
S-PAR 01	405/730m 221 (200-800m) GS 3.0°		405/1220m 221 (200-1200m) GS 3.0°	

\*Circling NA E of Rwy 01/19

HIRL RWY 01-19

007° to TACAN

ILS

35°27'N 139°27'E

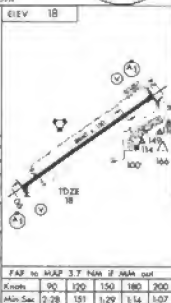
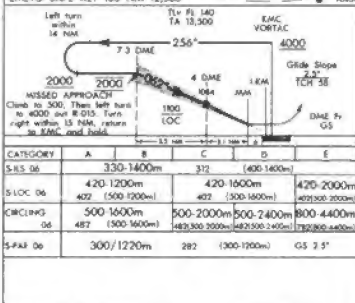
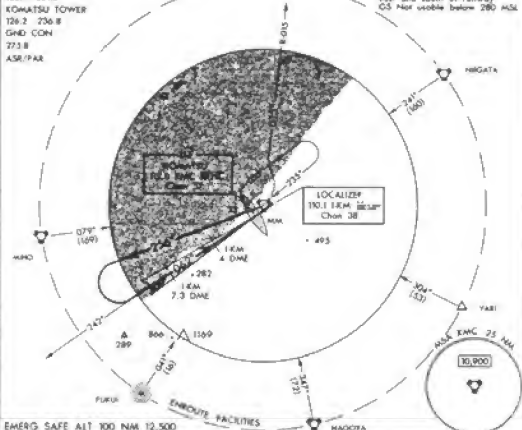
AYASE, HONSHU I., JAPAN

ATSUGI (RJTA)

## VOR/ILS RWY 06

KOMATSU APP CON  
120.1 281.2  
KOMATSU TOWER  
126.2 236.8  
GND CON  
273.8  
ASR/PAR

CAUTION:  
Rapidly rising high terrain  
east and south of runway  
GS Not usable below 280 MSL



## VOR/ILS RWY 06

36°23'N 136°25'E

KOMATSU, HONSHU I. JAPAN

KOMATSU (RJNK)





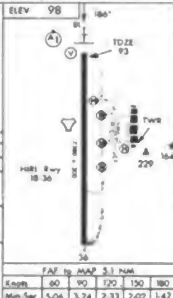
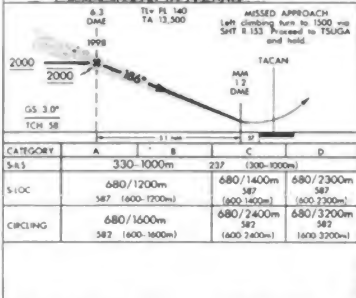
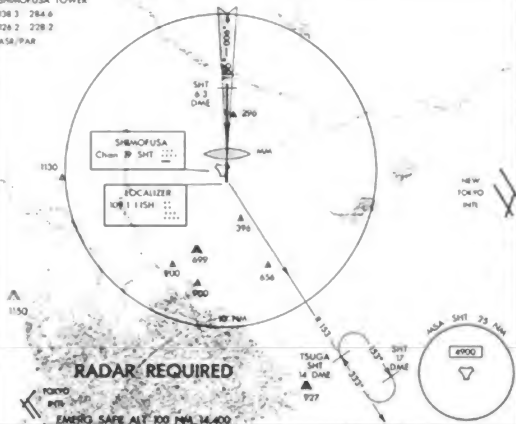
SHIMOFUSA (RJTL)  
SHIMOFUSA JAPAN

```

TC4YD APP CON
126 0 261 2
SHMOFUSA TOWER
138 3 284 6
126 2 228 2
ASB PAR

```

CAUTION: False GS info left of SHR R-011 wired to Loc.

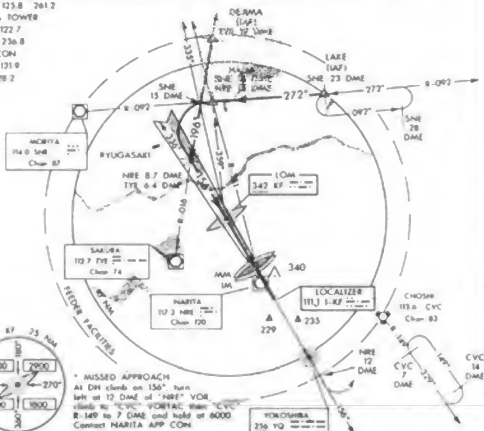


## ILS RWY 18

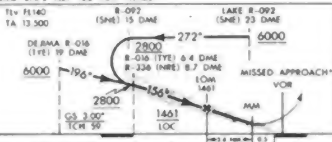
35°48'N-140°01'E

SHIMOFUSA, JAPAN  
SHIMOFUSA (8/71)

NARITA APP CON		
124.4	125.8	261.2
NARITA POWER		
118.2	122.7	
126.2	236.8	
GND CON		
121.8	121.9	
ATIS	128.2	



EMERG SAFE ALT 100 NM 14,400



CATEGORY	A	B	C	D
5.55 16	330/730m	200	(200-800m)	
5.10C 16	480/1220m	350	(400-1200m)	
CIRCLING	640 1600m 501 (600 1600m)	640 2400m 501(600 2400m)	700 3200m 561(600 3200m)	



HMR: Revy 65-34

PAF to MAP 3.9 NM					
Engpy	60	90	120	150	180
Min. Sec	3.54	2.36	1.57	1.33	1.18

NARITA, HONSHU, JAPAN

NEW TOKYO INTL (RJAA)

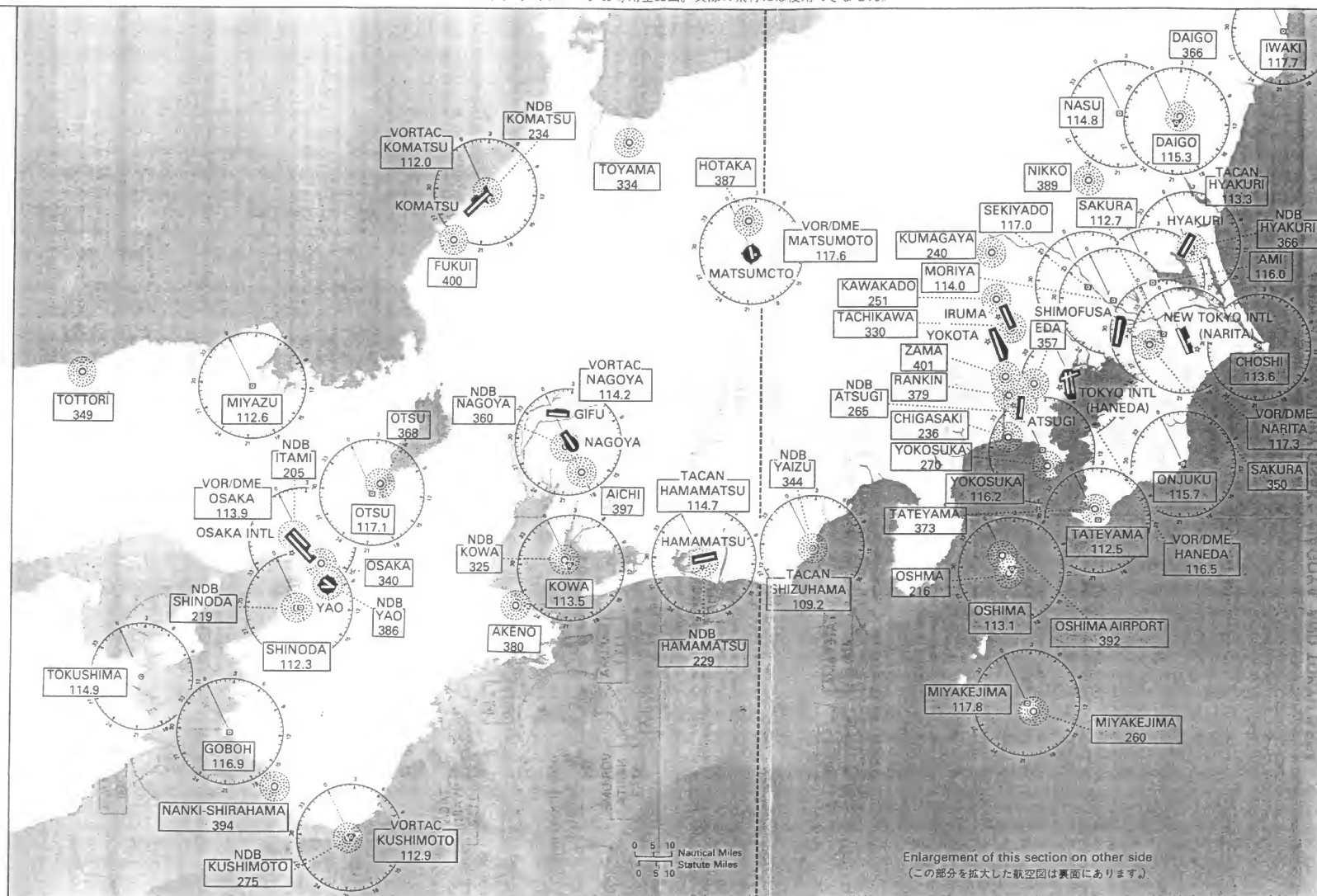






# OSAKA, NAGOYA, AND TOKYO AREA CHART

フライト シミュレータ専用空路図。実際の飛行には使用できません。



## AIRPORT DIRECTORY-OSAKA, NAGOYA, AND TOKYO AREA

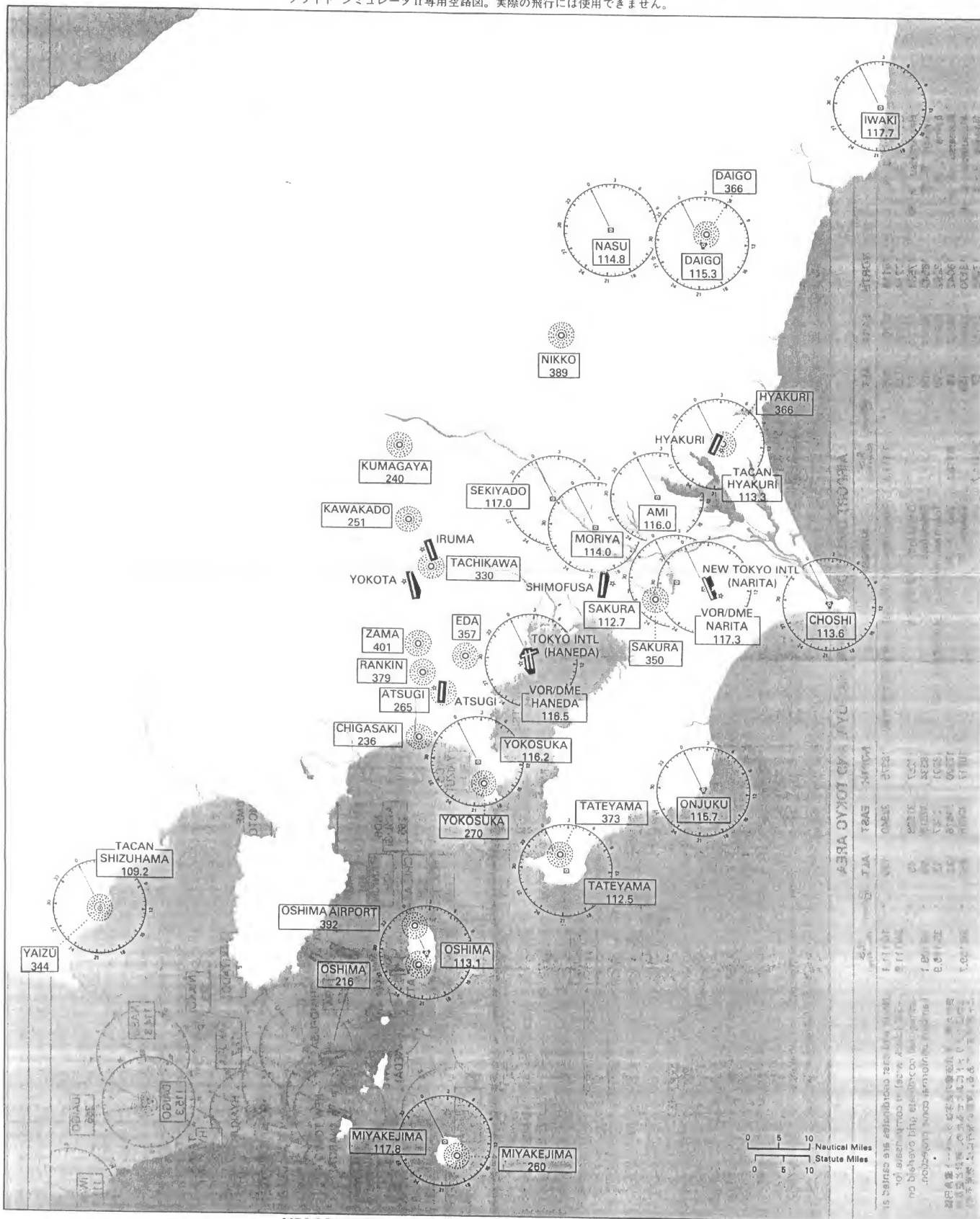
AIRPORT	NORTH	EAST	ALT.	(Fuel)	ILS (Rwy/Freq.)	AIRPORT	NORTH	EAST	ALT.	(Fuel)	ILS (Rwy/Freq.)
Atsugi 厚木	18118	32707	205	*	1/111.3	New Tokyo Intl. (Narita) 新東京国際空港(成田)	18375	32940	139	*	16/111.1
Gifu 岐阜	17714	31890	128			Osaka Intl. 大阪国際空港	17267	31528	49	*	34/111.9
Hamamatsu 浜松	17584	32274	151			Shimofusa 下総	18334	32819	98	*	18/109.1
Hyakuri 百里	18542	32874	104			Tokyo Intl. (Haneda) 東京国際空港(羽田)	18201	32787	12	*	33/110.9
Iruma 入間	18262	32619	299	*		Yao 八尾	17220	31616	33		
Komatsu 小松	18042	31572	18		6/110.1	Yokota 横田	18217	32618	457	*	36/109.7
Matsumoto 松本	18170	32090	2155								
Nagoya 名古屋	17669	31932	52		34/111.7						

North and east coordinates are canted at +26° (clock wise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.

表の北緯、東経座標の数字はランバート直角円錐法地図のグリッドにあわせるため、時計と逆方向に+26°修正してある。(実際の飛行には、使用不可)

# ENLARGED SECTION OSAKA, NAGOYA, AND TOKYO AREA CHART

フライト シミュレータII専用空路図。実際の飛行には使用できません。



## AIRPORT DIRECTORY-OSAKA, NAGOYA, AND TOKYO AREA

AIRPORT	NORTH	EAST	ALT.	F (Fuel)	ILS (Rwy Freq)
Atsugi 厚木	18118	32707	205	*	1/111.3
Hyakuri 百里	18542	32874	104	*	
Iruma 入間	18262	32619	299	*	
New Tokyo Intl. (Narita) 新東京国際空港(成田)	18375	32940	139	*	16/111.1 34/111.9
Shimofusa 下総	18334	32819	98	*	18/109.1
Tokyo Intl. (Haneda) 東京国際空港(羽田)	18201	32787	12	*	33/110.9
Yokota 横田	18217	32618	457	*	36/109.7

North and east coordinates are canted at +26° (clock wise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.

表の北緯、東経座標の数字はランバート直角円錐法地図のグリッドにあわせるため、時計と逆方向に+26°修正してある。(実際の飛行には、使用不可)



# Introduction to "Western European Tour" Scenery Disk

Scenery Disk Design and Tool Development by Michael Woodley  
Scenery Design by Loren Kirkwood

Maps by Michelle Maase & Ken Ruminski

"Western European Tour" includes the airports, radio nav-aids, and scenery details for large portions of Great Britain, France, and West Germany. Several airports (and a few surprises) can also be found outside the three main detailed scenery areas, along with additional radio transmitters provided to aid in long-range navigation and cross-country flight. This Scenery Disk has enough generic cross-country scenery and highly-detailed (sight-seeing) scenery areas to keep you flying for a long time. The scenery was developed using the same documentation that pilots would use to navigate these areas. The following notes and recommendations will help you to explore these new scenery areas.

---

## Southern Great Britain

Detailed airports include Bournemouth, Cardiff, Heathrow (London), Luton, and Norwich.

City of Interest: London

Parliament	-	18658N	13743E
Westminster Abbey			
Tower Bridge	-	18661N	13759E
Tower of London			
Buckingham Palace	-	18660N	13742E
Hyde Park with Serpentine Pond			
Post Office Tower			
St. Paul's Cathedral			
City lights at dusk and night			
Thames River			

Stonehenge Site	-	18570N	13245E
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Chalk Figures (prehistoric and recent)

Whipsnade Lion	-	18817N	13657E
Uffington White Horse	-	18743N	13369E
Westbury White Horse	-	18633N	13209E
Long Man of Wilmington	-	18365N	13788E

Lighthouse beacons along South England coast

Note to 68000 FS2 Users: After loading the Atari ST/Amiga Flight Simulator II (or Macintosh Microsoft Flight Simulator) program, you start out on Oakland Runway 27R. When you log-in the "Western European Tour" Scenery Disk you will automatically be transported to Heathrow Airport in London. You may return to Heathrow any time after this by selecting the prerecorded situation for Oakland 27R from the SITUATION menu

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## Northern France

Detailed airports include Caen, Le Touquet, Lille, and Charles de Gaulle (Paris).

City of Interest: Paris

Arc de Triomphe	-	17437N	14254E
Sacre Coeur Cathedral	-	17441N	14268E
Montmartre Hill			
Eiffel Tower	-	17430N	14254E
Tour Montpamasse	-	17423N	14261E
Concorde Obelisk	-	17433N	14261E
Louvre Museum	-	17430N	14266E
Notre Dame Cathedral	-	17426N	14269E
Ile St. Louis (island in the river)			
Seine River			
City lights at dusk and night			
Bois de Boulogne (park)			
Bois de Vincennes (park)			
Jardin du Luxembourg (park)			
Place des Invalides (park)			
Champ de Mars (park)			
Pere Lachaise Cemetery			

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## Southern West Germany

Detailed airports include Frankfurt and Neuberg.

City of Interest: Munich

Olympiastadion Tower	-	17028N	16832E
Olympic Grounds (park)			
Hauptbahnhof	-	17015N	16835E
Frauenkirche	-	17014N	16839E
Residenz	-	17015N	16841E
Deutsches Museum	-	17011N	16842E
Isar River with islands			
Theresienwiese beer garden (park)			

Englischer Garten (park)  
Holgarten (park)

City of Interest: Nurnberg

Fennmeldeturm Tower - 17553N 16676E  
Pegnitz River with parks

City of Interest: Stuttgart

Fennsahrurm Tower - 17269N 16172E  
Schlossgarten (park)  
Two adjacent mountains

City of Interest: Frankfurt

Fennmeldeturm Tower - 17854N 16030E  
Palmengarten (park)  
Opera House - 17845N 16034E  
Cathedral - 17841N 16040E  
Skyline buildings  
Zoologischer Garten (park)  
Three mountains (northwest of city)

City of Interest: Strasbourg, France

Rhein River and canals  
Jardin Botanique (park)  
Orangerie (park)  
Three mountains (southwest of city)

---

## Europe

Included is a map of Europe that shows the radio aids located outside of the three main detailed scenery areas. Use these radio aids to navigate between areas.

Several additional Europe scenery details are also available. Helsinki (Finland) Airport is located at:

22508N 19462E

This airport includes refueling facilities.

The city of Moscow is also accurately located inside Russia. While we could have listed the exact city coordinates, we thought it might be more interesting for you to try and locate Moscow for yourself (see following). The scenery includes the Kremlin Wall and park, "Red Square", several other parks, and several small lakes.

### Nurnberg to Helsinki

It's just possible to fly from Nurnberg, West Germany to Helsinki, Finland with a full load of fuel. Start out at Nurnberg Airport.

17586N    16891E

Take off and turn to a heading of 36 degrees. Level out at 5,000 feet, then cut your airspeed to 120 knots to conserve fuel. Your magnetic compass heading will tend to drift as you fly east, so be sure to keep yourself on a constant 36-degree heading. Also, make sure to keep your airspeed at or below 120 knots. If you fly any faster than this, you will probably run out of fuel and splash into the Baltic Sea before reaching Finland!

Keep your eyes open and start scanning the horizon for Helsinki Airport as soon as you cross over into Finland. The airport is approximately 20 minutes inland from the coast and is the only scenery detail in the entire country, so it should be relatively easy to locate if you fly anywhere near it. With any luck you should be able to find and land at Helsinki Airport with about twenty minutes of fuel left in your tanks.

The flight from Nurnberg to Helsinki takes about six hours at 120 knots, gear up, flaps off, at an altitude of 5,000 feet.

---

### Helsinki to Moscow

Your success in flying nonstop from Nurnberg all the way to Helsinki, Finland on a single tank of fuel has won you much notoriety, and strengthened your resolve to attempt an even greater feat, a secret, unauthorized solo flight from Helsinki to Moscow, deep in the Russian heartland.

After refueling your aircraft, you find yourself sitting on the runway and cleared for takeoff from Helsinki Airport at coordinates:

22508N    19462E

Take off and turn to a heading of 130 degrees. No radio nav-aid information is available for this flight, but you've determined that if you stay on this heading you should come near enough to Moscow for you to see and identify it visually. Your magnetic compass will tend to fluctuate as you fly from west to east, so make sure you maintain a 130-degree heading.

The flight from Helsinki to Moscow should take about three and one half hours at 135 knots, gear up, flaps off, at an altitude of 5,000 feet.

## Find Moscow's Red Square (the Easy Way)

You've landed your airplane in a remote area of western Russia:

21739N    22124E

and have taken some time to relax and wander the countryside. Presently you arrive at a nearby village, where the friendly townstolk inform you that you are very near Moscow and, of course, you shouldn't pass up this opportunity to see the nation's capital. The villagers assure you that the people of Moscow are very friendly and will warmly welcome someone who has made such a long flight to visit them. They also suggest that perhaps you could land in Red Square near the Kremlin.

Neither you nor they have any radio nav-aid information, but they tell you that if you take off and follow a southeast heading you should be able to spot the city on the horizon in a matter of minutes. You thank them for their hospitality and climb back into your plane to depart. The trip to Moscow from this location should take about 45 minutes at 130 knots, gear up, flaps off, at an altitude of about 5,000 feet. Good luck!

---

Above all else, explore! A lot of work went into this project. We hope that you enjoy the results as much as we do!

Special thanks to Dave Robins and British Airways AERAD for providing documentation used in the development of this Scenery Disk.

# RADIO-NAVIGATION - EUROPE AREA

VOR	FREQUENCY
ABERDEEN, UK	114.3
AUTUN, FRANCE	114.9
BELFAST, UK	116.2
BERLIN (TEGEL), GERMANY	112.3
BRAY SUR SEINE, FRANCE	114.1
BRUSSELS, BELGIUM	114.6
CHARTRES, FRANCE	115.2
DUBLIN, IRELAND	114.9
EPINAL, FRANCE	113.0
HAMBURG, GERMANY	113.1
HAMM, GERMANY	115.65
KEMPTEN, SWITZERLAND	109.6
LANDS END, UK	114.2
LEINE, GERMANY	115.2
LA TOUR DU PIN, FRANCE	110.6
MARTIGUES, FRANCE	117.3
OLNO, BELGIUM	112.8
ORLY, FRANCE	111.2
RAMBOUILLET, FRANCE	114.7
REKKEN, NETHERLANDS	116.8
RINGO, DENMARK	110.2
ROLAMPONT, FRANCE	117.3
ST. PREX, SWITZERLAND	113.9
SHANNON, IRELAND	113.3
SPIJKERBOOR, NETHERLANDS	113.3
STRASBOURG, FRANCE	115.6
TALLA, UK	113.8
TREZZO, ITALY	111.8
VESTA, DENMARK	116.6
ZURICH EAST, SWITZERLAND	115.0

# EUROPE RADIO-NAVIGATION CHART

NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



## LEGEND

NAME  
FREQUENCY



VOR

NAME  
FREQUENCY



VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY



VOR/DME

## Abbeville (VOR)

17997N 14192E  
freq 116.6

## Abbeville

17998N 14192E  
alt 233

RWY 3-21 5247 X 163



## Amiens

17862N 14333E  
alt 197

RWY 12-30 4132 X 85



## Autun, France (VOR)

16519N 14723E  
freq 114.9

## Beauvais

17692N 14235E  
alt 358

RWY 13-31 7970 X 170  
RWY 5-23 3627 X 150



## Berck-Sur-Mer

18127N 14142E  
alt. 30

RWY 6-24 281 X 196  
RWY 18-36 1967 X 196



## Bernay / St. Martin

17998N 13776E  
alt. 551

RWY 10-28 3017 X 327  
RWY 17-35 2787 X 327



## Berry Head (VOR)

18350N 12834E  
freq. 112.7

## Boulogne (VOR)

18204N 14240E  
freq. 113.8

## Bray sur Seine, France (VOR)

17205N 14519E  
freq. 114.1

## Bretigny

17316N 14253E  
alt. 269

RWY 5-23 9839 X 327  
RWY 12-30 5739 X 196



## Brussels, Belgium (VOR)

18233N 14925E  
freq. 114.6

## Caen (F)

17673N 13497E  
alt. 256

RWY 13-31 5431 X 190  
RWY 6-24 3870 X 98



## Chen (VOR)

17657N 13550E  
freq. 115.4

## Calais

18348N 14272E  
alt. 10

RWY 7-25 4992 X 150





## Cambrai (VOR)

17587N 14561E  
freq. 112.6

## Chartres (VOR)

17315N 13860E  
freq. 115.2

## Chartres

17285N 14011E  
alt. 508

RWY 10-28 2755 X 150



## Châtillon (VOR)

17509N 14631E  
freq. 117.6

## Cherbourg

17927N 13245E  
alt. 456

RWY 11-29 8003 X 150



## Costa, Belgium (VOR)

18445N 14641E  
freq. 111.8

## Coulommiers (VOR)

17397N 14458E  
freq. 112.9

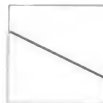
## Deauville (VOR)

17899N 13721E  
freq. 110.2

## Denuville

17730N 13680E  
alt. 479

RWY 12-30 6887 X 150



## Detling (VOR)

18555N 13921E  
freq. 117.3

## Diekirch, Luxembourg (VOR)

17759N 15399E  
freq. 114.4

## Dieppe (VOR)

17900N 12024E  
freq. 115.8

## Dieppe

17915N 13970E  
alt. 344

RWY 13-31 2689 X 196



## Dover (VOR)

18474N 14110E  
freq. 114.95

## Epinal, France (VOR)

17118N 15280E  
freq. 113

## Evreux (VOR)

17542N 13959E  
freq. 112.4

## Goodwood (VOR)

18415N 13546E  
freq. 114.75

## Hamm, Germany (VOR)

18588N 15800E  
freq. 115.65

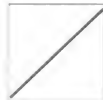
## Lands end (VOR)

18341N 12224E  
freq. 114.2

## Le Havre

17804N 13672E  
alt. 312

RWY 5-23 6887 X 131



## Le Mans

17125N 13607E  
alt. 194

RWY 3-21 4624 X 98



## Le Touquet (F)

18165N 14159E  
alt. 36

RWY 14-32 7373 X 231  
RWY 7-25 3678 X 139



## Lille (F)

18138N 14562E  
alt. 157

RWY 8-26 9260 X 150  
RWY 2-20 4263 X 98



## London (VOR)

18668N 13657E  
freq. 113.6

## Lydd (VOR)

18421N 13979E  
freq. 114.05

## Mantes (VOR)

17508N 14032E  
freq. 112

## Midhurst (VOR)

18492N 13993E  
freq. 114

## Montdidier (VOR)

17722N 14344E  
freq. 113.6

## Montmedy, France (VOR)

17579N 15062E  
freq. 109.4

## Monts d'Arree, France (VOR)

17445N 12597E  
freq. 112.5

## Nicky, Belgium (VOR)

18346N 14855E  
freq. 117.4

## Ockham (VOR)

18590N 13651E  
freq. 115.3

## Oino, Belgium (VOR)

18065N 15245E  
freq. 112.8

## Orly (VOR)

17368N 14270E  
freq. 111.2

Paris, Charles De Gaulle (F)

17490N 14331E  
alt. 387

RWY 9-27 11807 X 150  
RWY 10-26 11850 X 150

Paris, Le Bourget

17471N 14299E  
alt. 216

RWY 7-25 8003 X 150  
RWY 2-20 6999 X 150  
RWY 8-26 3903 X 131



Paris, Orly

17372N 14266E  
alt. 292

RWY 7-25 11971 X 150  
RWY 2-20 7871 X 196  
RWY 8-26 10889 X 150



Pontoise (VOR)

17540N 14195E  
freq. 111.6

Rambouillet (VOR)

17352N 14157E  
freq. 114.7

Reims (VOR)

17571N 14772E  
freq. 112.3

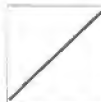
Rolampont, France (VOR)

16253N 15048E  
freq. 117.3

Rouen

17097N 13970E  
alt. 515

RWY 5-23 4099 X 98



Seaford (VOR)

18345N 13770E  
freq. 117

Southampton (VOR)

18346N 13770E  
freq. 113.35

Strasbourg (VOR)

17172N 15171E  
freq. 115.6

## 12 · NORTHERN FRANCE

### Toussus-Le-Noble

17390N 14194E

alt. 538

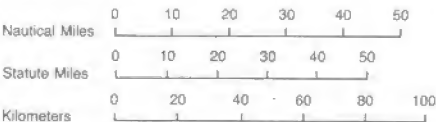
RWY 8-26 3407 X 98

RWY 8-26 3443 X 98



# AIRPORT DIRECTORY - NORTHERN FRANCE

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
				(Feet)	(Miles/Feet)
Abbeville	Abbeville	17998	14192	220	
Amiens	Glisy	17862	14333	197	
Beauvais	Tille	17692	14235	358	
Berck-Sur-Mer	Berck-Sur-Mer	18127	14142	30	
Bernay	St. Martin	17598	13776	551	
Bretigny	Bretigny	17316	14253	269	
Caen	Carpiquet	17673	13497	256	
Calais	Dunkerque	18348	14272	10	
Chartres	Champhol	17285	14011	508	
Cherbourg	Maupertus	17927	13245	456	
Deauville	St. Gatten	17730	13680	479	
Dieppe	St. Aubin	17915	13970	344	
Le Havre	Octeville	17804	13672	312	
Le Mans	Arnage	17125	13607	194	
Le Touquet	Paris-Plage	18165	14159	36	
Lille	Lesquin	18138	14562	157	
Paris	Charles De Gaulle	17490	14331	387	28-109.1
ATIS		128.00			
Paris	Le Bourget	17471	14299	216	
Paris	Orly	17372	14266	292	
Rouen	Boos	17697	13970	515	
Toussus-Le-Noble	Toussus-Le-Noble	17390	14194	538	



North and east coordinates are canted at approximately 5° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.

## LEGEND



Civil-Public use airport



Restricted/Private-Nonpublic use airport, having emergency use or landmark value

SANTA MONICA  
ATIS 119.15  
175-50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

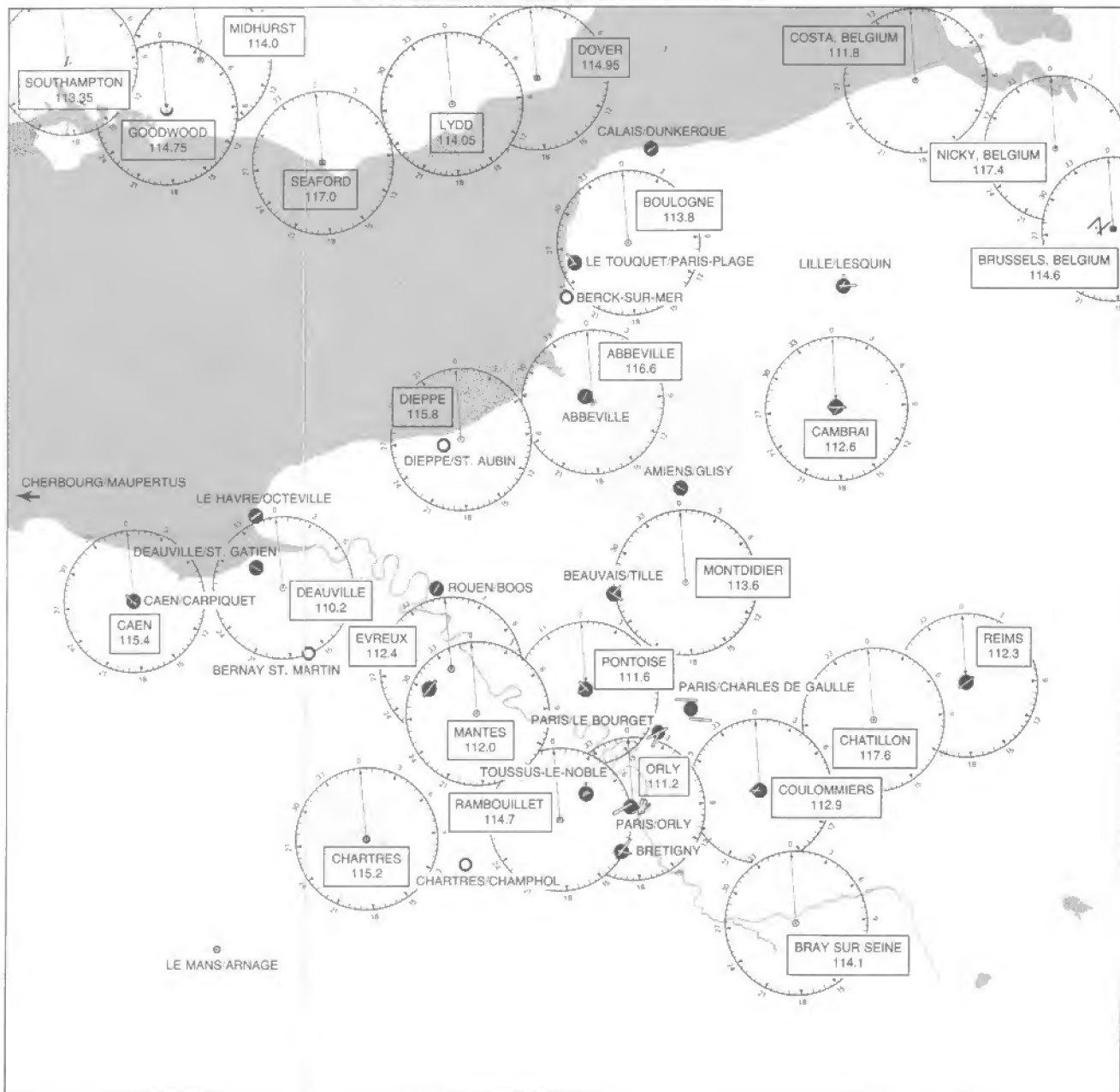
Non Directional Beacon

VOR/DME  
NAME  
FREQUENCY

If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

# ENLARGED SECTION NORTHERN FRANCE AREA CHART

NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



## Allenberg (VOR)

17466N 16733E  
freq 111.2

## Augsburg-Mühlhausen

17132N 16657E  
alt 1512

RWY 7-25 4198 X 98



## Baden-Fladen/Duis

17289N 158930E  
alt 403

RWY 4-22 4198 X 98  
RWY 4-22 3279 X 98



## Bayreuth (VOR)

17795N 16888E  
freq 111.6

## Berlin (Tegel), Germany (VOR)

18893N 17217E  
freq 112.3

## Brussels, Belgium (VOR)

18230N 14929E  
freq 114.6

## Charlie (VOR)

17760N 16135E  
freq. 115.5

## Diekirch, Luxembourg (VOR)

17759N 15339E  
freq. 114.4

## Dinkelsbühl (VOR)

17433N 16463E  
freq. 117.8

## Donaueschingen/Villingen

16943N 15980E  
alt. 2227

RWY 18-36 4231 X 65

## Eggenstein

17778N 16028E  
alt. 384

RWY 9-27 2951 X 85

## Epinal, France (VOR)

17118N 15280E  
freq. 113

## Erding (VOR)

17066N 16943E  
freq. 113.6

## Erlangen (VOR)

17645N 16713E  
freq. 114.9

## Frankfurt (F)

17800N 15997E  
alt. 364

RWY 7-25 13119 X 196  
RWY 7-25 13119 X 150  
RWY 18-36 13119 X 150

## Frankfurt (VOR)

17808N 16027E  
freq. 114.2

## Freistadt, Austria (VOR)

17176N 17541E  
freq. 113.5





## Friedrichshafen

16813N 16258E  
alt. 1364

RWY 6-24 7721 X 98



## Hamm, Germany (VOR)

18588N 15800E  
freq. 115.65

## Karlsruhe

17368N 15935E  
alt. 381

RWY 3-21 3115 X 98  
RWY 3-21 2623 X 98



## Karlsruhe (VOR)

17370N 16006E  
freq. 115.95

## Kempten (VOR)

16841N 16496E  
freq. 109.6

## Kitzingen (VOR)

17686N 16451E  
freq. 111.4

## La Tour du Pin, France (VOR)

15923N 15034E  
freq. 110.6

## Leine, Germany (VOR)

18750N 16357E  
freq. 115.2

## Luburg (VOR)

17336N 16213E  
freq. 109.2

## Mannheim/Neustheim

17572N 15993E  
alt. 306

RWY 9-27 3279 X 85  
RWY 9-27 2285 X 98



## Montmedy, France (VOR)

17575N 15052E  
freq. 109.4

## Munich (VOR)

17032N 10933E  
freq. 112.3

## Munich

17016N 16876E  
alt. 1738

RWY 7-25 9197 X 196



## Neubiberg (F)

16989N 16888E  
alt. 1811

RWY 7-25 8003 X 91



## Nurnberg (VOR)

17595N 16619E  
freq. 117.4

## Nurnberg

17586N 16691E  
alt. 1046

RWY 10-28 8855 X 150



## Otloo, Belgium (VOR)

18085N 15245E  
freq. 112.8

## Rekken, Netherlands (VOR)

18727N 15552E  
freq. 116.8

## Roding (VOR)

17403N 13095E  
freq. 114.7

## Rolampont, France (VOR)

16953N 15048E  
freq. 117.3

## Spijkerboor, Netherlands (VOR)

18913N 15099E  
freq. 113.3

## St. Prex, Switzerland (VOR)

16330N 15355E  
freq. 113.9

## Strasbourg (VOR)

17172N 15717E  
freq. 115.6

## 8 - SOUTHERN WEST GERMANY

### Strasbourg

17088N 15734E

alt. 502

RWY 5-23

7871 X 150



### Stuttgart

17241N 16176E

alt. 1259

RWY 8-26

8363 X 163



### Tango (VOR)

17214N 16189E

freq. 112.5

### Treviso, Italy (VOR)

15912N 16248E

freq. 111.8

### Tulln, Austria (VOR)

17139N 18066E

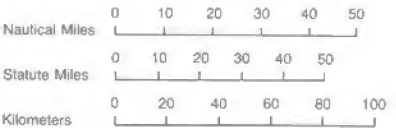
freq. 111.4

### Zurich East, Switzerland (VOR)

16770N 16051E

freq. 115

AIRPORT DIRECTORY - SOUTHERN WEST GERMANY					
CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
				(Feet)	(Freq/Freq)
Augsburg	Mulhausen	17132	16657	1512	
Baden	Baden-Baden/Oos	17289	15893	403	
Donaueschingen	Villingen	16943	15980	2227	
Egelsbach	Egelsbach	17779	16028	384	
Frankfurt	Main	17803	15997	364	25L/110.7
Friedrichshafen	Friedrichshafen	16813	16258	1364	
Karlsruhe	Forchheim	17368	15935	380	
Mannheim	Neustheim	17572	15993	308	
Munich	Munich	17016	16876	1738	
Munich	Neubiberg	16989	16858	1811	
Nurnberg	Nurnberg	17586	16691	1046	
Strasbourg	Entzheim	17188	15734	502	
Stuttgart	Stuttgart	17241	16176	1299	



North and east coordinates are canted at less than 3° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.

NAME

FREQUENCY

NAME

FREQUENCY

NAME

FREQUENCY

NAME

FREQUENCY

VOR/DME

NAME

FREQUENCY

Civil-Public use airport

Restricted/Private-Nonpublic use airport, having emergency use or landmark value

Airport Name

Advisory Frequency (if available)

Elevation (feet) — Length (hundreds of feet)

VOR

VORTAC (Distance Measuring Equipment Able)

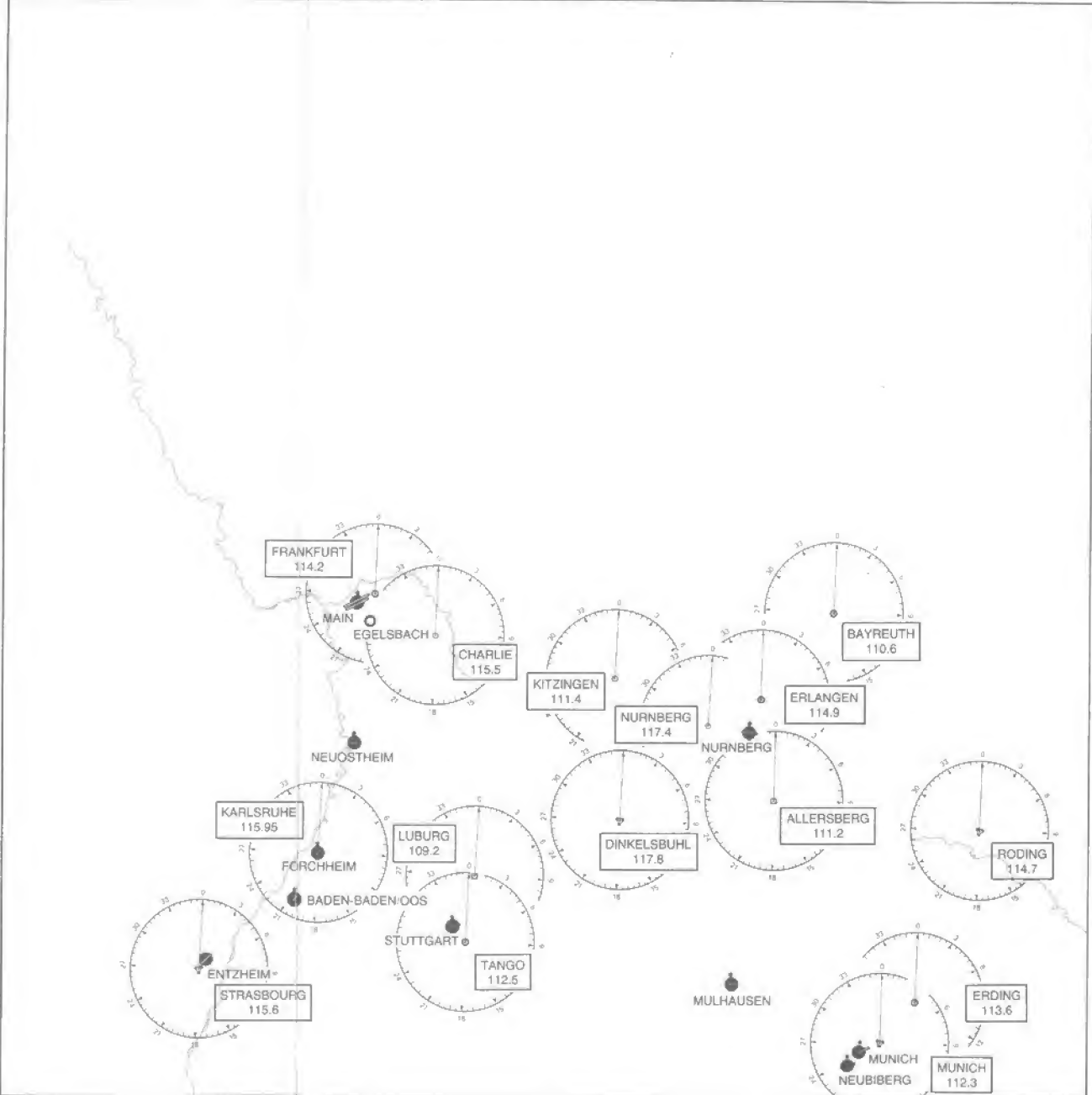
VOR/DME

Non Directional Beacon

If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

# ENLARGED SECTION SOUTHERN WEST GERMANY AREA CHART

NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



## Abbeville (VOR)

17997N 14192E  
freq 1166

## Belfast, UK (VOR)

20117N 12537E  
freq 1162

## Bembridge

18356N 13445E  
alt 56

RWY 12-30 2742 X 72



## Berry Head (VOR)

18339N 12804E  
freq 1127

## Birmingham Intl

19110N 11889E  
alt 325

RWY 15-33 7399 X 150  
RWY 6-24 4316 X 150



## Boulogne (VOR)

18313N 14240E  
freq 1138

## Bournemouth (Hurn) (F)

18426N 13261E  
alt. 36

RWY 8-26 6028 X 150  
RWY 17-35 4841 X 150



## Bovington (VOR)

18760N 13649E  
freq. 113.75

## Brecon (VOR)

18871N 12957E  
freq. 117.45

## Bristol Airport

18709N 13074E  
alt. 620

RWY 9-27 6892 X 150  
RWY 15-33 3307 X 150



## Brussels, Belgium (VOR)

18233N 14920E  
freq. 114.6

## Cambrai (VOR)

17867N 14552E  
freq. 112.6

## Cambridge

19940N 13857E  
alt. 49

RWY 6-24 6441 X 150



## Cardiff (F)

18743N 12912E  
alt. 220

RWY 12-30 7721 X 150  
RWY 3-21 3667 X 98



## Caerleon (VOR)

18763N 14086E  
freq. 114.55

## Compton (VOR)

18994N 13463E  
freq. 114.35

## Costa, Belgium (VOR)

18445N 14641E  
freq. 111.8

## Cranfield

18911N 13649E  
alt. 364

RWY 4-22 5930 X 150  
RWY 8-26 5989 X 150  
RWY 18-36 2033 X 59



## Daventry (VOR)

18973N 13532E  
freq. 116.4

## Deauville (VOR)

17699N 13721E  
freq. 110.2

## Detling (VOR)

18555N 12921E  
freq. 117.3

## Diekirch, Luxembourg (VOR)

17759N 15391E  
freq. 114.4

## Dieppe (VOR)

17930N 13998E  
freq. 115.8

## Dover (VOR)

18474N 14100E  
freq. 114.95

## Dublin, Ireland (VOR)

19688N 12334E  
freq. 114.9

## Exeter

18475N 12846E  
alt. 102

RWY 8-26 6828 X 150  
RWY 13-31 4395 X 150



## Gam (VOR)

19421N 13636E  
freq. 112.8

## Gloucester / Cheltenham

18860N 13249E  
alt. 95

RWY 18-36 2295 X 91  
RWY 9-27 4664 X 118  
RWY 4-22 3188 X 131



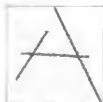
## Goodwood (VOR)

18415N 13546E  
freq. 114.75

## Halfpenny Green

19155N 13264E  
alt. 292

RWY 4-22 2090 X 72  
RWY 10-28 2492 X 72  
RWY 16-34 3863 X 72



## Hamm, Germany (VOR)

18588N 15804E  
freq. 115.65

## Heathrow (F)

18657N 13660E  
alt. 79

RWY 10-28 12798 X 150  
RWY 10-28 11998 X 150  
RWY 5-23 7734 X 150



## Honiely (VOR)

19066N 13405E  
freq. 112.9

## Ipswich

18837N 14106E  
alt. 128

RWY 8-26 3417 X 341  
RWY 14-32 2984 X 301



## Lambourne (VOR)

18710N 13823E  
freq. 115.6

## Lands end (VOR)

18341N 12224E  
freq. 114.2

## London (VOR)

18668N 13657E  
freq. 113.6

## London - Gatwick

18517N 13709E  
alt. 203

RWY 8-26 8416 X 150  
RWY 8-26 10364 X 150



## Luton (F)

18822N 13703E  
alt. 525

RWY 8-26 7084 X 150  
RWY 18-36 2282 X 131  
RWY 6-24 1285 X 85



## Lydd (VOR)

18421N 13974E  
freq. 114.05



## Lydd

18402N 13921E  
alt. 10

RWY 4-22 4933 X 118



## Mansion

18549N 14116E  
alt. 177

RWY 11-29 9026 X 196



## Midhurst (VOR)

18492N 13993E  
freq. 114

## Montdidier (VOR)

17722N 14344E  
freq. 113.6

## Nicky, Belgium (VOR)

18346N 14855E  
freq. 117.4

## Norwich (F)

19102N 14160E  
alt. 118

RWY 4-22 6002 X 150  
RWY 9-27 6041 X 150


## Ockham (VOR)

18500N 13651E  
freq. 115.3

## Otmo, Belgium (VOR)

18085N 15245E  
freq. 112.8

## Oxford

18840N 13458E  
alt. 269

RWY 2-30 3850 X 72  
RWY 12-30 2492 X 91


## Pole Hill, UK (VOR)

19627N 13391E  
freq. 112.1

## Rekken, Netherlands (VOR)

18727N 15552E  
freq. 116.8

## Scaford (VOR)

18345N 13770E  
freq. 117

## Shannon, Ireland (VOR)

19567N 11619E  
freq. 1133

## Shoreham

18391N 13666E  
alt. 7

RWY 3-21 2702 X 59



## Southampton (VOR)

18346N 13770E  
freq. 11335

## Southampton

18477N 13397E  
alt. 43

RWY 2-30 5648 X 118



## Southend

18663N 13900E  
alt. 49

RWY 6-24 5261 X 118  
RWY 15-33 3712 X 91



## Spijkerboor, Netherlands (VOR)

18513N 15069E  
freq. 1133

## Stu (VOR)

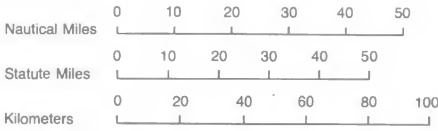
19066N 12529E  
freq. 1131

## Talla, UK (VOR)

20408N 13399E  
freq. 1138

AIRPORT DIRECTORY - SOUTHERN UNITED KINGDOM

CITY	AIRPORT	NORTH	EAST	ALT. F	ILS
				(Feet)	(Rwy Freq)
Bembridge	Isle of Wight	18356	13445	56	
Birmingham	Birmingham Intl	19110	13388	325	
Bournemouth	Hurn	18426	13261	36	*
Bristol	Bristol Airport	18709	13074	620	
Cambridge	Cambridge	18940	13857	49	
Cardiff	Cardiff	18743	12912	220	*
Cranfield	Cranfield	18911	13649	364	
Exeter	Exeter	18475	12846	102	
Gloucester	Cheltenham	18896	13249	95	
Halfpenny Green	Halfpenny Green	19155	13264	292	
Ipswich	Ipswich	18837	14108	128	
London	Gatwick	18517	13709	203	
London	Heathrow	18657	13660	79	*10L/110.3
ATIS		121.85			
Luton	Luton	18822	13703	525	*
Lydd	Lydd	18402	13992	10	
Manston	Manston	18549	14116	177	
Norwich	Norwich	19102	14160	118	*
Oxford	Kidlington	18840	13458	269	
Shoreham	Shoreham	18391	13666	7	
Southampton	Southampton	18477	13397	43	
Southend	Southend	18663	13960	49	



North and east coordinates are canted at approximately 8° (clockwise) to compensate for orthogonal coordinate grid overlaid on Lambert conformal conic projection.

LEGEND

Civil-Public use airport

Restricted-Private-Nonpublic use airport, having emergency use or landmark value

SANTA MONICA  
ATIS 119.15  
175.50

Airport Name  
Advisory Frequency (if available)  
Elevation (feet) — Length (hundreds of feet)

NAME  
FREQUENCY

VOR

NAME  
FREQUENCY

VORTAC (Distance Measuring Equipment Able)

NAME  
FREQUENCY

VOR/DME

NAME  
FREQUENCY

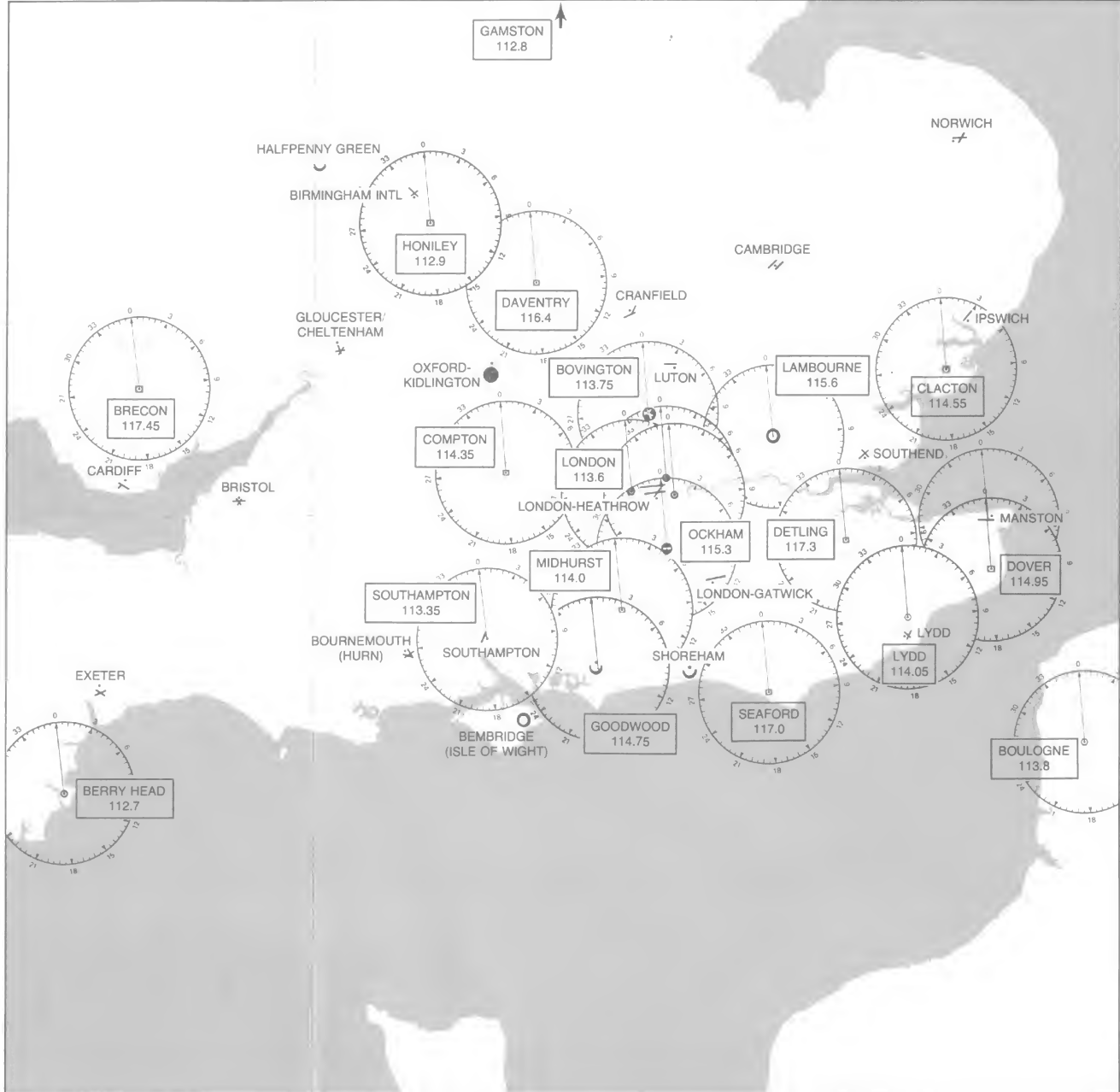
Non Directional Beacon

VOR/DME  
NAME  
FREQUENCY

If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.

ENLARGED SECTION SOUTHERN UNITED KINGDOM AREA CHART

NOT TO BE USED FOR REAL WORLD AERIAL NAVIGATION.



# **BRADSHAW POINT**

73584N  
alt. 33

60862E

RWY 11-29 8410 X 200

RWY 4-22 8335 X 200

RWY 4-22 8335 X 200



# **BARKING SANDS PMRF**

13695N  
alt. 16

60174E

RWY 16-34 6010 X 150



# **BRADSHAW (BSF) (NDB)**

12724N  
freq. 339

61872E

# **DILLINGHAM**

13496N  
alt. 16

60810E

RWY 8-26 9000 X 75



## FORD ISLAND ALF

13409N 60905E  
alt. 16

RWY 4-22 4005 X 55



## GENERAL LYMAN FLD, HILO (F)

12707N 62094E  
alt. 39

RWY 8-26 9800 X 150  
RWY 3-21 5605 X 150



## HAIKU

13661N 60315E  
alt. 384

RWY 6-24 2400 X 75



## HANA

13165N 61694E  
alt. 75

RWY 8-26 3610 X 100



## III 23

13671N 60318E  
alt. 479

RWY 7-25 2000 X 75



## HILO (ITO) (VOR)

12711N 62112E  
freq. 116.9

## HONOKAA

12864N 61907E  
alt. 1440

RWY 8-26 1800 X 75



## HONOLULU (HNL) (VOR)

13131N 60822E  
freq. 113.8

## HONOLULU INTL (HNL)

13131N 60822E  
alt. 11

RWY 8-26 13360 X 150  
RWY 5-35 7200 X 200  
RWY 4-22 9000 X 150  
RWY 4-22 6950 X 150



## KAHULUI, MAUI (F)

13205N 61525E  
alt. 52

RWY 2-20 6995 X 150  
RWY 5-23 4995 X 150



## KALAUPAPA

13339N 61307E  
alt. 26

RWY 5-23 2685 X 55



## KAMUELA (MUF) (VOR)

12830N 61841E  
freq. 113.3

## KANEHOE BAY (NGF) (NDIR)

13443N 60985E  
freq. 265

## KANEHOE BAY MCAS

13443N 60984E  
alt. 16

RWY 4-22 7770 X 200



## KAPALUA WEST MAUI

13236N 61427E  
alt. 256

RWY 2-20 3000 X 75



## KEAHOLE, KAILU KONA (F)

12716N 61690E  
alt. 43

RWY 17-35 6500 X 150



## KOKO HEAD (CKH) (VOR)

13367N 61011E  
freq. 113.9

## KONA (IAI) (VOR)

12675N 61698E  
freq. 115.7

## LANAI (LNY) (VOR)

13152N 61309E  
freq. 117.7

## LANAI, LANAI CITY

13162N 61318E  
alt. 1309  
RWY 3-21 5000 X 150



## LIHUE (LIH) (VOR)

13671N 60352E  
freq. 113.5

## LIHUE, KAUALA (F)

13673N 60349E  
alt. 148  
RWY 17-35 6500 X 150  
RWY 3-21 6005 X 150



## MAUI (OGG) (VOR)

13209N 61525E  
freq. 114.3

## MAUNA KEA HONOLULU

12730N 62058E  
alt. 1401  
RWY 7-25 1800 X 75



## MCGREGOR POINT (MPP) (NDB)

13157N 61487E  
freq. 353

## MOLOKAI (MKK) (VOR)

13311N 61226E  
freq. 116.1

## MOLOKAI

13317N 61254E  
alt. 453

RWY 5-23 4495 X 100  
RWY 12-30 3115 X 100

## MOLOKAI (VOR)

12630N 62076E  
alt. 1499

RWY 5-23 1800 X 75



## PAHOA (POA) (NDB)

12634N 62129E  
freq. 332



## PELEAU

12789N 62048E  
alt. 1089  
RWY 7-25 2100 X 75



## PORT ALLEN, KAUAI

13642N 60245E  
alt. 23  
RWY 9-27 2450 X 60



## PRINCEVILLE

13774N 60313E  
alt. 358  
RWY 5-23 3400 X 75



## SOUTH KAUAI (SOK) (VOR)

13643N 60275E  
freq. 115.4

## UPOLU (UPP) (VOR)

12912N 61768E  
freq. 112.3

## UPOLU

12939N 61763E  
alt. 95  
RWY 7-25 3800 X 75



## WAIMEA-KOHALA

12830N 61841E  
alt. 2670  
RWY 4-22 5195 X 100



## WAIPUNALEI

12822N 62002E  
alt. 1361  
RWY 11-29 2100 X 75



## WHEELER (HHI) (NDB)

13453N 60875E  
freq. 373



## HAWAII AREA CHART

A map of the Hawaiian Islands showing major airports and their elevations. The islands are labeled: NIHAU, KAUAI, OAHU, MOLOKAI, LANAI, LANAI CITY, KAHOLAWE, MAUI, and UPOLU. Airports are marked with dots and labeled with their names and elevations in feet. Some airports are also marked with a small airplane icon. The map includes a compass rose and a scale bar.

Island	Airport Name	Elevation (ft)
Kauai	LIHUE (LIH)	113.5
Kauai	KAMILE (ADD)	108.6
Oahu	HONOLULU (HNL)	115.3
Oahu	KOKO HEAD (CKH)	113.9
Oahu	WHEELER (AOG)	379
Molokai	MOLOKAI	110.1
Lanai	LANAI (LNY)	117.7
Lanai City	LANAI CITY	117.7
Maui	MAUI (OGG)	114.3
Maui	MC GREGOR POINT (MPH)	350
Upolu	UPOLU (UPF)	112.3

OAHU

FORD ISLAND  
NAVAL AIR STATION

PEARL HARBOR

S.S. ARIZONA  
MEMORIAL

HONOLULU INTL  
AIRPORT

HONOLULU

SAND ISLAND




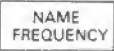


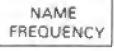
HONOLULU HARBOR

DIAMOND HEAD CRATER

KOOLAU MOUNTAIN RANGE

BARBERS NAVAL  
AIR STATION

HONOLULU (HNL)  
115.5°

	Civil-Public use airport
	Restricted/Private-Nonpublic use airport, having emergency use or landmark value
	Rotating light in operation, sunset to sunrise
SANTA MONICA ATIS 119.15 175-50	Airport Name Advisory Frequency (if available) Elevation (feet) — Length (hundreds of feet)
 NAME FREQUENCY	VOR
 NAME FREQUENCY	VORTAC (Distance Measuring Equipment Able)
 NAME FREQUENCY	VOR/DME
 NAME FREQUENCY	Non Directional Beacon
VOR/DME NAME FREQUENCY	If VOR falls directly on an airport, only the airport symbol will be shown. The VOR facility type is shown at the top of the box.